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Med
N
(american reprint)

THE

# MEDICO-CHIRURGICAL REVIEW,

AND

# JOURNAL

OF

# PRACTICAL MEDICINE.

*NEW SERIES.*

VOLUME TWENTY.

[BEING VOL. XXIV. of ANALYTICAL SERIES.]
[1st of OCTOBER to 31st of MARCH,]
1833-1834.

EDITED BY

**JAMES JOHNSON, M.D.**

PHYSICIAN EXTRAORDINARY TO THE KING OF GREAT BRITAIN,

AND

HENRY JAMES JOHNSON, M.R.C.S.

LATE HOUSE SURGEON TO ST. GEORGE'S AND THE LOCK HOSPITALS.

" Nec tibi quid liceat sed quid fecisse decebit
" Occurrat mentemque domat respectus honesti."—CLAUD.

412959
12. 6. 43

REPUBLISHED
BY RICHARD & GEORGE S. WOOD,
No. 261 PEARL-STREET.
NEW-YORK.

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## TO CORRESPONDENTS.

The analysis of the work on Cutaneous Diseases received from our Correspondent in L——l, must remain till next Number, when it will appear.

The Clinical Report from the Roachdale Dispensary is received.

The excellent analysis drawn up by Dr. Lucas, of Malta, has come safe to hand, and will be appropriated in our next.

SCOTO-BRITANNICUS. The Index of the 20 volumes, New Series, will not be incorporated with that of the four annual volumes of a preceding series.

Dr. CUMMING. The communication respecting the fatal case of Mœlena came safe to hand.

THE

# Medico-Chirurgical Review,

No. XXXIX.

OCTOBER 1, 1833, TO JANUARY 1, 1834.

## I.

MEDICO-CHIRURGICAL TRANSACTIONS. Vol. XVIII. Part 1. November, 1833, pp. 300—3 Plates.

THE eighteenth volume of this Society's Transactions promises to be a very respectable one, if we may judge by the first half. The commmnications are thirteen in number, and the contributors are all favorably known to the profession—several of them high on the rolls of fame in the medical world. When we mention the name of Bright, Elliotson, Stanley, Key, Lloyd, Arnott, Hawkins, Langstaff, &c. we are sure that observations from such sources must command the attention of our readers. Without further preface, therefore, we shall proceed to embody a full account of some of the contributions to this volume in the present number of our Journal.

### 1. CASES AND OBSERVATIONS CONNECTED WITH DISEASES OF THE PANCREAS AND DUODENUM. By *Richard Bright*, M.D.

The object of this paper is to draw the attention of the profession to a particular symptom in disease, hitherto but little noticed. Independent of this, however, the distinguished author of the paper hopes that the cases narrated will be found interesting, independently of the subject for which they are introduced.

"The symptom to which I refer is a peculiar condition of the *alvine evacuation*, a portion more or less considerable assuming the character of an *oily* substance resembling fat, which either passes separately from the bowels, or soon divides itself from the general mass, and lies upon the surface, sometimes forming a thick crust, particularly about the edges of the vessel, if the fæces are of a semi-fluid consistence, sometimes floating like globules of tallow which have been melted and become cold, and sometimes assuming the form of a thin fatty pellicle over the whole, or over the fluid parts, in which the more solid figured fæces are deposited." 2.

This oily matter has generally a slight yellow tinge, and very fetid odour. Dr. Bostock, on examination of this substance, declared it to be adipocire. The author has, very wisely, attached little importance to the chemical character of the substance under consideration.

*Case* 1. A clerk in a waggon-office, 49 years of age, sober and regular, became affected, in March, 1827, with immoderate thirst, large discharge of urine, and the usual symptoms of diabetes. In September, he presented the

phenomena of jaundice, for which he was treated in various ways by different practitioners. In December, he came under the care of Dr. B. Babington, the narrator of the case. The urine was evidently diabetic—the thirst and appetite great. He was ordered to live on animal food, with a moderate proportion of greens or lettuces, and to take subcarbonate of soda. The quantity of urine diminished on this plan, and, on the 15th Dec. the jaundice being considerable, blue-pill and taraxacum were prescribed. On the 24th Dec. the skin still continued yellow; but the urine was no longer diabetic, and only six pints in the 24 hours. The liver was found to be hard, and distinctly perceptible three or four inches below the ribs. The gall-bladder was enormously distended. The mouth was affected by mercury. On the 28th, the patient began to pass a quantity of "*yellowish fatty matter, much resembling butter that had been melted, and again solidified.*" This matter followed the fæces. Liquor potassæ was substituted for the carb. sodæ. This, by the 31st, had *apparently* done away with the oily character of the motions. But the debility and emaciation steadily advanced —the character of the evacuations was bad—and on the 8th January, 1828, the fatty motions re-appeared. It is unnecessary to pursue this case—the poor man died, worn out, on the 1st of March.

*Dissection.* We shall only select the chief characters, as much of the detail is unnecessary.

"The abdomen contained rather more than a gallon of dark olive coloured fluid. The gall bladder distended with very dark bile, was seen with its fundus projecting when the parietes were first removed. The liver was of a dark olive colour from the bile with which it was pervaded. The ducts were greatly enlarged. The common duct was large enough to admit the little finger freely when passed from above downwards, and its internal surface presented a honeycomb or reticulated appearance, and terminated by a cul de sac in the diseased substance of the pancreas, and at its shut end a rough white deposit had taken place probably either of fibrin or cholesterine.

*The head of the pancreas* formed with some of the surrounding glands, a hard globular mass, round which the duodenum turned, and to which both it and the pylorus were firmly joined, and in two parts, where the pancreas and duodenum were welded together by the disease, ulcers of a hard and scirrhous character had taken place, penetrating the whole thickness of the intestine; one of them of the size of a shilling, and the other not larger than a silver penny piece. The pancreas was hard and cartilaginous to the touch, and of a bright yellow colour.

A section of the liver looked like a fine grained dark greenstone porphyry, or very dark Aberdeen granite; the ducts, which were throughout enlarged, being completely filled with bile which flowed from the incision. In different parts of the liver a few irregular masses occurred of a firm hard consistence, but shaded off into the substance of the liver, and not bearing the appearance of circumscribed tubera. The stomach was slightly vascular. The spleen natural in structure, but its external surface mottled, with cartilaginous deposit. The intestines were tolerably natural, but somewhat opake, and the internal lining rather pale. The kidneys were to external appearance perfectly healthy; but the tubular parts showed themselves more plainly than usual, when the kidney was torn open, and in some of the tubes were white specks from a deposit either of fibrin or of calculous matter. The pelvis of the kidney was not vascular, but was tinged with bile. The lining membrane of the bladder was remarkably healthy and free from all vascularity; but its net-like appearance bespoke more than usual action in the muscular coat. The aorta and common iliacs were in many patches diseased with bony deposits surrounded by dark spots, where the internal surface had been destroyed by ulceration or absorption." 12.

*Case* 2. This was a female, aged 50, admitted into Guy's Hospital on the 19th November, 1828. She was intensely jaundiced—greatly emaciated—stools of a clay colour—occasional severe pains in the bowels—urine highly tinged with bile. Three months previously she was seized with violent pain in the abdomen attended with diarrhœa, her food passing undigested. These pains still continued to return at intervals up to the time of her admission. They were relieved by pressure. The skin was now permanently yellow for six weeks. Dr. B. concluded that the phenomena depended on some organic obstruction pressing at once on the gall-ducts and pylorus, without the chance of remedy. Some pil. hydrarg. and decoct. aloes c. were given, and in a few days he observed the stools covered with white round masses larger than peas, which he attributed to a dose of castor oil that had been taken. But the woman assured Dr. B. she had often passed such stools when no castor oil had been taken. On the 5th December she was ordered taraxacum. On the 6th some of the fatty matter was shewn to Dr. Bostock. She lingered till the 16th Feb. of the succeeding year, when she died at Gravesend.

"*Sectio Cadaveris, Feb.* 18, 1829.—Skin generally of a deep yellow colour, varying in parts to greenish brown, not very unlike the dark colour of the Creole. General emaciation, but by no means to the extent sometimes seen; indeed on the abdomen, there was a considerable portion of fat of a deep yellow colour.

The lungs were in a very healthy state, except that they were both bound firmly at the posterior part by very strong adhesive bands, and the whole surface was tinged moderately with bile. Heart healthy, but small and not firm.

On opening the abdomen, the omentum rather loaded with fat. No peritoneal disease or adhesion, except on the superior surface of the liver, which was attached in several parts by long adhesions to the diaphragm.

The cause of pressure on the bile ducts was immediately obvious; for, on placing the hand near the pylorus a hard lump of the size of a common egg was easily felt, and was soon discovered to be the head of the pancreas itself, and not the glands surrounding that part, forming a yellow mass like the boiled udder of a cow, almost cartilaginous. Its texture was uniformly hard and unyielding, and the whole pancreas partook of the same, but in a less degree. The head of the pancreas was firmly and inseparably glued to the duodenum, and the hardness very nearly surrounded that viscus. Laying open the duodenum, its internal surface was uneven and ulcerated, the ulcer having eroded the whole of the coats, and in the portion lying on the head of the pancreas it was of a soft consistence and light yellow colour communicating with the substance of the tumour here irregularly softened or suppurating to the extent of a small chesnut. In the midst of the ulcer a little nipple-like body was seen projecting on its surface, which proved to be the orifice of the common duct of the gall bladder. This was still pervious as the thick bile could be squeezed out of the gall bladder through it. But it was obvious that this had either lately become pervious by the ulceration of its orifice, or the ulceration of the hard mass in which it was imbedded, or that its situation in the contracted duodenum had acted as a compressing cause; for the gall bladder was distended, containing at least four ounces of thick dark green bile which stained the lining membrane of the deepest colour. The gall bladder, though thus loaded, was not tense, and conveyed the idea of a somewhat flaccid bag, so that I should have pronounced it to have been more distended lately than at the present moment. The disease of the mucous coat of the intestines occupied the outside of the ridge forming the pylorus, which was strongly marked, but was not scirrhous; yet on passing the finger before the pylorus was cut open, the hardened neighbouring structure produced all the effect of a stricture.

The liver was of its natural size, containing several round tubera sprinkled through various parts, from the size of a grain of rice to that of a nutmeg. These were not very numerous, but five or six were seen on the superior surface where they were perfectly circular, and a little depressed in the centre. They were decidedly harder than the surrounding liver, but did not separate freely from it; on the contrary, generally seemed to be shaded off into the surrounding parts and the texture of the liver was discernible in them. The larger tubera were soft and yellow in the centre. The general structure of the liver was healthy, rather soft, and of a dark olive green colour. The biliary ducts were enormously distended, their branches near the margins of the liver were visible on the surface, and they were filled with a fluid watery bile.

The mucous membrane of the stomach was rather spongy, of a reddish tint, and it contained half a pint of brown grumous matter, apparently secreted from its surface. We examined several portions of the mucous membrane both of the small and large intestines, but they presented nothing peculiar except a rather spongy texture, and on some parts a grey colour. The spleen was healthy but soft. The kidneys large and flaccid, tinged with bile throughout, particularly their lining membrane. The large vessels appeared healthy and the lumbar and other glands were not diseased. The bladder contained some yellow urine. The uterus was rather thick and round in its form, the cavity large, and the glands at the mouth of that organ put on the appearance of vesicles at first sight. They were distended with glairy almost gelatinous mucus of a yellow colour, which could with some force be squeezed from their orifices." 20.

It is probable, as Dr. B. says, that the disease in the pancreas was the first in order of succession, and had existed for some time before the other commenced. Latterly the biliary ducts were mechanically obstructed, and as the bile could not be properly discharged from the liver, it is a question how far various diseases of this organ and of other parts might be ascribable to this morbid retention of the hepatic secretion.

*Case* 3. Jane Davis, aged 21, was admitted on the 13th July, 1831, with anasarca of the lower extremities. There was also some fluid in the abdomen—countenance sallow, lips purple, some jaundice of the face. She had lived rather irregularly.

"14th. Her bowels had been copiously opened without medicine. I saw the evacuations, they were abundant, of a pultaceous consistence, very deficient in bile, and most dreadfully fætid. The chamber pot was completely filled, and on the surface was observed a thin scum like a thin film of grease which collected and coagulated as grease more decidedly upon the side of the vessel. The lower and more fluid parts of the contents of the vessel looked slightly tinged with blood. It was doubted whether some parts were not purulent. Placing the hand on the abdomen, the upper part was distended and rather tender, particularly towards the right side, where an indistinct hardness could be felt, somewhat resembling the liver." 22.

Hyd. cum creta, with Dover's powder was ordered. No material alteration occurred; except loss of flesh, the evacuations continuing copious, fetid, and of a dark clay-colour, with fatty pellicles on the surface. She expired on the night of the 19th of the same month.

"*Dissection.* The whole body was decidedly tinged with bile, some yellow serum escaped from the abdomen when it was opened. The liver was immediately seen considerably enlarged from distention, and of a dark olive green colour. The fundus of the gall-bladder projected, it was distended with bile of a dark green colour. The quantity

which it contained could not have been less than four ounces, and the ducts were as large as the little finger till they entered the duodenum where the orifice was very small, and it required considerable force to make the bile pass into the intestines. The whole of the intestines were somewhat distended, and in several places, when viewed externally, their puckered and discoloured appearance plainly indicated that mischief had been going on within, and at one part of the small intestines an actual perforation, large enough to admit the point of the little finger had taken place, but a slight adhesion which gave way in the examination prevented the feculent matter from being effused.

The whole course of the intestines was now laid open, and fungoid excrescences and ulcerations were found distributed at irregular intervals from their commencement at the pylorus, to the termination at the colon. Whether any existed in the rectum, I am not quite certain. These ulcers might be traced throughout their whole progress. They began by small elevations, generally upon the edges of the convolutions of a light yellow or white substance, and those which had arrived at the size of a pea, generally had a depression in the centre as if from partial ulceration. The depressed part was softer than the surrounding edge, and if the tumour was squeezed, a whitish puriform or cerebriform matter issued from pores upon its surface. This, however, was better seen when the whole disc had increased to the size of a sixpence. About this time, or sometimes sooner, the surface lost its light and clean appearance, and became covered, sometimes with a sloughy mass, but more frequently with a dark grumous coat, apparently from blood, which had exuded, and become changed on its surface. The mass was now elevated nearly half an inch, the edges inverted or cup-shaped, and the centre either raised with the loose fungoid slough and blood, or if this had come away, was deeply excavated, going on in its progress to perforate the substance. In two instances, these fungoid ulcerations communicated immediately with large fungoid excrescences, probably glands situate externally to the intestine. One of these was close to the ileo-colic valve, where the external ulcer was black with grumous exudation, and formed the mouth of a cavity which would admit the finger into a mass involving the glands of the mesocolon. Another of the same kind, but less completely opening into the external diseased mass, occurred in a portion of the duodenum.

The mesenteric glands were involved in this disease, and the renal capsules, but more particularly the left, had suffered from the same affection.

The kidneys were healthy. The uterus was healthy, but its appendages had suffered great irritation. One of the fimbriated extremities was completely bound down, and the orifice obliterated, and the ovaries were corrugated and contained vesicles in different states of disease.

In the liver no fungoid disease shewed itself, but its texture was natural, though gorged with bile. The pancreas was most deeply involved in the disease. It formed a hard mass near its head, and then a more healthy portion intervening, another hardened mass was seen near to the spleen, when another small portion remained healthy at its termination, so that it might be said to be occupied by two fungoid tubercles, which involved two thirds of its whole structure. The limits of these diseased masses were not distinctly defined, but they were of a more yellow colour than the rest of the organ, and destroyed the lobular structure of the gland.

The spleen was unusually small.

In the chest the same disease was found affecting the bronchial glands, and in the form of one round fungoid tubercle of the size of a moderate plum, in the apex of one of the lungs; this was imbedded completely in the substance, and was of a yellow white colour." 25.

Dr. B. observes that, when we draw a comparison between the three fore-

going cases, a very close analogy, or even identity, will, in many circumstances, be traced. In all of them chronic ailment terminated, sooner or later, in jaundice, accompanied by a great peculiarity in the alvine dejections. In all, there were found obstructed biliary ducts—liver gorged with bile—diseased pancreas—and malignant ulceration of the duodenum. But all these analogies and coincidences being granted, we have still a very insecure basis for a theory of the peculiar discharges from the bowels. Dr. B. is inclined to attribute the said peculiarity of discharge to the malignant ulceration in the duodenum.

The two following cases are introduced by Dr. B. in order to shew cause why he doubted the existence of diseased pancreas, the peculiar discharges being absent.

*Case* 4. This was a coachman who had suffered the usual exposures of his situation, and had, for several months, been wasting and growing pallid, complaining of constant deep-seated pain at the scrobiculus cordis going to the back. Although considerably emaciated at the time, Dr. B. could detect no tumor in any part of the abdomen. There was no jaundice, no sickness, nor any appearance of disease in the lungs. None of the fatty matters could be seen in the evacuations. On dissection, there were found scirrhous tumors in the liver, in Glisson's capsule, and at the small curvature of the stomach. The pancreas was sound.

*Case* 5. This was a man, aged 50, who had suffered deep-seated pain at the scrobic-cordis for several months, together with palpitation of the heart, and abdominal pulsation. He wasted much, lost his colour; but no tumor could be felt. It was evident, however, that the heart was diseased. There were no fatty matters in the evacuations. Dr. B. therefore demurred to the idea that there was any disease of the pancreas. He died in about a month.

*Dissection.* Very general and old adhesions were found between the pleura costalis and the pleura pulmonalis, some parts of the lung were hepatized from old disease, while other parts were emphysematous, and some recent irritation was observable in the bronchial membrane. The heart adhered very closely to every part of the pericardium, and was enlarged in its substance universally. The mitral valves and the semilunar valves of the aorta were slightly diseased.

The liver contained a good deal of blood, which was distributed irregularly between the acini, so as to give a mottled or nutmeg appearance. The acini were light coloured, a little tinged with bile. The gall bladder was full of bile, but not distended beyond its natural size. The ducts were pervious; but it was with some difficulty we could make the bile pass from the gall-bladder to the duodenum, apparently owing to its tenacious condition. The pancreas was perfectly healthy, nor was there any material derangement in the other abdominal viscera." 30.

Two cases are next introduced from the practice of Dr. Hull, of Montrose, where almost all the circumstances of the disease in the first cases, including the fungoid disease of the pancreas, existed, and yet with the absence of the fatty discharges from the bowels. These cases we must notice summarily.

*Case* 6. An old lady had enjoyed excellent health till within six months. In May 1827, she began to have occasional pains in the back and sides,

giddiness, dimness of vision (aged 76), palpitation, constipation. To these symptoms were afterwards added constant uneasiness, weight and sense of distention in the stomach, with the eructations and distressing palpitations. The pulse and tongue were natural—urine scanty, with pinky deposit—skin dry—bowels costive. She could lie only on the left side.

"About the 26th of December, a considerable change took place in the appearance of the evacuations. The urine became of a much higher colour, and the stools bore a whitish clay-like aspect; her countenance assumed a bilious tinge. The pain of the side was much more acute, and fixed to a particular spot. Nausea also was superadded to her other distressing feelings. The jaundice became gradually more and more confirmed, and towards the middle of April anasarca began to occupy the legs, and effusion took place in the abdomen." 33.

Without any great variation in the symptoms she died worn out on the first of June, 1828.

*Dissection.* The gall-bladder was enormously distended. The ductus communis was an inch in diameter, and completely obliterated at its duodenal extremity. The contents were about eight ounces of black fluid, resembling black paint. The liver was healthy, but gorged with bile. The stomach was apparently healthy. The duodenum considerably thickened, and somewhat contracted. The pancreas was enlarged, and formed a mass of schirrhous disease, involving the termination of the ductus communis in the same diseased structure, where it was completely impervious. The other intestines were healthy. They were not permitted to examine the thorax.

*Case* 6. A gentleman aged 35, consulted Dr. Hull, 16th June, 1831, being afflicted with abdominal tumors. There were several of these, but the two chief masses were, one above, and the other below the umbilicus.

"The upper mass which did not quite reach to the pit of the stomach, was about the size of the fist, and on its upper part there was an elastic portion, as if it were an intestine distended with air, lying upon the tumour. The lower mass lay below, and a little to the left of, the umbilicus, rising towards the margin of the ribs on the left side, but not to be traced as passing under them. This gentleman was able to walk about and transact his affairs as usual, and his complexion was good, but he complained of considerable loss of general strength, and this was increasing. He stated that ten months before, having previously enjoyed good health, he was supposed to labour under inflammation of the liver, for which he was bled, and other remedies were employed which gave him relief, but left him weak, and of this he never completely recovered; but he had not perceived the tumours till three months before the present time." 37.

Dr. H. considered them as connected with the omentum and peritoneum He heard no more of the patient till April, 1832, when he was informed of his death. He learnt that, in the interval, he had been twice jaundiced—his urine high coloured—stools like clay or yeast—but no fatty substances had been observed.

*Dissection.* The liver was healthy, with the exception of a scirrhous tuber on the convex surface, and a few smaller ones in the substance of the viscus. The gall-bladder was greatly distended with bile of a thick consistence and green colour. The upper tumor was a hard mass connected with the omentum, and attached also to the stomach. The lower tumor arose from the

root of the mesentery, displaced the small intestines—involved the aorta and iliacs, the pancreas, kidneys, &c. The pancreas was almost annihilated by pressure. The cystic duct was distended with bile, and obstructed by pressure, though not completely so. The pancreatic duct was almost completely obstructed. The diseased masses were of a round form and almost cartilaginous hardness. Some of them were slightly creamy in the centre—some cetaceous. They were conglomerate. The mucous membrane of the duodenum was decidedly diseased, though incipiently so. It appeared as if the malignant disease was establishing itself in that structure. The chest was not examined.

The two foregoing cases are not very confirmatory of our author's doctrine; and he deserves great credit for bringing them forward, though somewhat adverse to his views. This is too seldom the practice with those who have an hypothesis to establish. Another case is detailed, and which occurred in Guy's Hospital, presenting almost all the phenomena that were seen in the foregoing cases, but still without the fatty matters in the evacuations. We need not notice this case, after the full account which we have given of the others.

"Taking then a general review of the foregoing cases, and recapitulating some of the foregoing observations, we find three instances only, in which the fatty evacuation existed; but in each of them so many morbid causes were combined, that it is necessary, by comparing them with other known facts, to reduce these causes as far as we are able, and in doing this we may observe—1st, that a great deficiency of the biliary secretion is well known very frequently not to produce the effect: 2dly, we also know that most extensive fungoid and melanotic destruction of the liver without jaundice is unattended by this symptom: 3dly, we know that extensive fungoid disease in the liver, with jaundice, does not produce it. 4thly, we know that the more simple and inflammatory diseases of the liver, which cause jaundice, are not characterized by these evacuations: 5thly, we know that the extensive ulceration of the mucous membrane of the intestines, from diseases of other kinds, are not indicated by a discharge of fatty matter: and 6thly, we have every reason to believe that malignant ulceration frequently exists in various parts of the intestinal canal, from the pylorus to the rectum, but more particularly in these two parts, without this symptom. Thus then we bring the circumstances of the diseased structure, as far as they have hitherto attracted observation, in connection with this symptom, within a narrow limit,—*disease probably malignant of that part of the pancreas, which is near to the duodenum; and ulceration of duodenum itself.* These are the only two conditions, which can be traced as being peculiar to all the three cases, and there is good reason to believe that in one of the other cases which I have stated, where this symptom was wanting, the ulceration between the duodenum and the pancreas was also wanting; while in the next case a healthy portion of the pancreas intervened between the fungoid disease and the duodenum, and the mucous membrane of the intestine was not ulcerated; and in the last case, the disease was probably rather seated in the absorbent glands than in the pancreas itself. In this last case, however, the duodenum was ulcerated, and the pancreatic duct greatly enlarged from obstruction, and therefore the case almost identical with those in which the fatty discharge had been observed.

I am well aware that deductions of this kind bear too much the appearances of sophistry to be very applicable to our reasonings on the phenomena of disease, and I freely own that they afford but slender conviction even to my own mind. I offer them, therefore, in no other view than as hints to be improved by future observers, and I will not even affect to decide, whence the peculiar fatty matter is derived: whether it is to be considered as a

vitiated secretion from natural structures, which must here be chiefly mucous membranes; or as a discharge from the diseased and ulcerated parts; or as the product of defective digestion of alimentary matter, depending on the imperfect supply or irregular admixture of the biliary and pancreatic or other secretions, or on the perverted and impeded action of the duodenum." 52.

The modesty and good sense of the latter part of the above extract must be sufficiently obvious—and indeed they are characteristic of the author and of all his contributions to medical science. We would not, on slight grounds, differ with such a man as Dr. Bright; but as every one is invited to contribute his individual experience for the good of the whole, we venture to say that the phenomena in the fæcal evacuations alluded to by Dr. Bright, are, by no means, *necessarily* connected with any organic disease in any one of the sub-diaphragmatic viscera. His own cases, indeed, as well as his own doubts, will bring most readers to this conclusion. We do not, however, ground our dissent on the author's own admissions, but on our own observations.

From no very limited field of experience, we can safely say that the phenomena in question—the fatty substances in the evacuations, so far from being a rare, are, on the contrary, a very common occurrence or symptom, in disordered states of the alimentary canal. There is scarcely a day in the week, on which these "fatty substances" are not brought to us by patients, in bottles or in cups, as strange phenomena, and not less terrifying than strange—to them. People affected with disordered function of the digestive organs are proverbially attentive to every phenomenon and symptom that bear reference to their own health. Modern opinions and doctrines induce them to pay particular attention to the fæcal evacuations. In addition to a variety of morbid feelings, they perceive that they lose flesh and strength. When, therefore, they see in their motions what even physicians call "fatty substances," they very naturally take the alarm, and conceive that they are discharging the fat of their bodies through channels which ought to convey away only the refuse of their nutriment. No wonder they observe, that their bodies waste, when their fat is running through them! We see this phenomenon so much more frequently in functional than in organic diseases, that we attach but little importance to it, and only look upon it as an index or proof that considerable irritation exists in the line of the intestinal canal—we mean, of course, in the mucous membrane. We consider the said substance to be merely a morbid or unnatural secretion from the mucous glands—and possibly from other glands of larger size, as the pancreas. We have frequently seen this discharge change its character, and assume the appearance of tough and orange-coloured jelly, that might be drawn out to almost any length, so tenacious were its particles of each other. This appearance, we have little doubt, was dependent on deranged biliary secretion, all the other symptoms being in support of this opinion. These fatty and albuminous discharges so generally disappear under proper diet and medicines, that we had but one opportunity of examining the body after death, where the phenomenon was conspicuous. In this case the liver was enlarged and tuberculated—and the mucous membrane of almost the whole of the intestines was more or less thickened, and affected with chronic inflammation.

We have made it a rule, when patients have mentioned this peculiar discharge, to put them upon rigid, simple, and light diet—with a few grains of hyd. cum creta and pulv. ipecac. compos. at night; and rhubarb and magnesia in the morning. After a short course of this kind, alkaline bitters, with attention to diet and mild aperients, have removed these appearances from the fæces, and restored the abdominal functions to a healthy state.

It is curious that, in the same volume, two other, and lengthy papers on the subject, are published—one from the pen of Mr. Lloyd—the other from that of Dr. Elliotson. We shall notice these in our next number.

## II. ADDITIONAL FACTS RESPECTING GLANDERS IN THE HUMAN SUBJECT. By Dr. *Elliotson.*

IT is now about three years since Dr. E. published a paper in the 16th volume of the Society's Transactions on the above subject, a full account of which will be found in this Journal, about the same period. Mr. Coleman and Mr. Youatt doubted, at that time, the possibility of the transmission of glanders from the quadruped to the biped—but Mr. Youatt, at least, has renounced his scepticism, since seeing the case in question.

*Case.* W. Johnson, aged 23, was admitted into St. Thomas's Hospital on the 31st January, under Dr. Williams, complaining of tightness across the chest, pain in the right side and loins, and great lassitude. The tongue was rather coated; and there was perspiration, thirst, and a pulse of 90.

"On the 2d of February, there was pain of the head and loins, and frequent watery and offensive stools. He became a little incoherent in his answers, rigors began, and the tongue was tremulous. He continued to be occasionally delirious, and on the 4th, in addition to the other symptoms, there was pain in the forehead and vertex, in the right hypochondrium, and in the extremities. On the 10th, he had been furiously delirious, and required strapping down; he complained of gnawing pains in all his limbs, of great difficulty in moving the left arm, for the joints were very painful, and the knuckle of the forefinger was tumefied and red; the discharge from the skin was profuse, sour and offensive; leeches were applied to the temples. On the 11th, the swelling on the hand had increased, there was also a red swelling on the right outer ankle; the tongue was covered with a brown dry fur, and there were much thirst and heat of throat. On the 13th, a portion of his chest which had been blistered before his admission, and had now been sloughing several days, was affected with burning pain; the right temple on which the leeches were applied, was much swollen, and dark coloured; the right eye closed, and the leech-bites sloughed and discharged an unhealthy pus. On the 14th, in the evening, an offensive and yellowish discharge began from the right nostril, and a large swelling arose in the middle of the forehead of a purplish appearance; the left eye was nearly closed and numerous tumefactions took place on the arms and legs; several phlyzacious pustules were seen on the left side of the neck; the pulse was 112." 205.

Mr. Stone, the assistant-apothecary, who had seen the other cases of glanders in the hospital, questioned the patient closely, and learnt that his occupation was amongst horses—that he had been grooming a glandered horse kept in a stable by itself—and that some of the discharge frequently fell upon one of his hands, upon which the scar of a wound was still visible.

On the 15th Dr. Elliotson saw the patient, and hesitated not a moment to denominate the disease a case of communicated glanders. The whole scalp was now tumefied, the forehead purplish, the eyelids red and shining, burning heat in the throat and nostrils, thirst intense, more tumefactions on the abdomen and extremeties, and several phlyzacious pustules on the side of the body. He died on the 17th, in the morning.

*Dissection.* On cutting into the various tumefactions on the head, trunk, and extremities, they were found to be full of pus, underneath which, in many, a number of small white granules were seen; and these, in several instances were closely attached to the periosteum or perichondrium. The frontal sinuses contained a jelly-like secretion, and a number of similar granules, and on the septum narium was an ulcer exactly like those which have I seen in the nostrils of glandered horses, and upon it lay a cluster of granules. Two or three very large white circular elevations were found immediately below the sacculi laryngis. Mr. Youatt, who was present, called them 'true glanderous chancres.' About an inch below the valve of the colon, for three inches in extent, on the whole of the surface, were white granules exactly like those in other parts." 207.

There can be little doubt of the nature of the above melancholy and loathsome disease, of which an excellent coloured plate is given as Dr. E. has himself seen three cases, and a fourth has been recorded in a short space of time, it is probable that the disease though rare *is not extremely rare*, since it is very likely to have been mistaken in many instances, before attention was drawn to the subject. Since the publication, indeed, of Dr. Elliotson's first paper, upwards of a dozen of cases have been related to him by medical men, which they are now satisfied were glanders, though at the time they occurred, they knew not what name to give to the disease, nor did they suspect its origin.

III. Cases of Sloughing Abscess connected with the Liver, with some Remarks on Encysted Tumors of that Organ. By *Cæsar Hawkins*, Esq. Surgeon of St. George's Hospital, &c.

The length of this paper is great, but perhaps it does not exceed its importance. It consists of two parts. The first is devoted to the consideration of aqueous encysted tumors—the second to that of encysted tumors of the hydatid kind. There is also what may be viewed as an appendix, consisting of a case of aqueous encysted tumors of the kidney.

The first part opens without any observations, the author at once relating the particulars of two cases of sloughing abscess connected with the liver. The first of these was reported in the number of this Journal for July, 1831, and does not require re-insertion here.* We therefore pass to the relation of the second.

*Case.* Mary Mullens, æt. 22, admitted into St. George's Hospital, April 30th, 1832, under the care of Mr. Babington.

There was a large fluctuating tumor, situated at the under margin of the

* Case of William Hollock, p. 275, et seq.

liver, and apparently intimately connected with it, with considerable induration around the swelling, which prevented the outline of the liver itself from being distinguished. There was considerable pain and tenderness on pressure; the whole surface of the body, and the conjunctivæ were of a very light yellow tinge;—the pulse low and weak, and very rapid;—the tongue dry and covered with a foul brown fur;—the countenance anxious, as if she was suffering from confinement of matter.

Three months before her admission, after what she called a violent cold, she was attacked by pain in the region of the liver, and about a month after the pain commenced, she observed a small swelling about three inches above the umbilicus, and midway between the linea alba and the edge of the lower ribs on the right side. The swelling had been progressively enlarged since that time, with very considerable pain; she had become jaundiced, and her general health was much disordered. She had been bled, and had had leeches applied.

On the 1st of May a needle was introduced into the swelling, and, purulent matter appearing to issue, the opening was enlarged by a lancet. This evacuated eight ounces of a fluid, which was thin and of a light brown colour. No evidence of bile was obtained by the admixture of nitric acid.

During the month of May the patient experienced relief from the pain which she had previously experienced. She had occasionally an attack of fever removed by calomel and senna. The discharge continued to display the same character, but at times was mixed with blood.

"In the beginning of June, though her general health was on the whole improved, the discharge became nearly constantly dark, as if mixed with blood:—excoriation came on in the skin around the puncture, which, by June 26th, extended over a surface as large as an orange, but unattended with much pain, and the integuments below the excoriated part, were hard and prominent, as if germinating a fungus; the depth and circumference of the cavity were however, now a good deal diminished.

In a few days after this report, the hardness was succeeded by sloughing of the aperture, which spread slowly and gradually, but with occasionally increased rapidity, to a considerable size. The hardness and redness of the skin and separation of the cuticle around the ulcer always preceded the sloughing, and it was observed that a deeper orifice, probably that in the lower tendon of the rectus muscle near the sac, increased slowly in size, while the sloughing of the integuments and abdominal muscles above took place to a much greater extent. The discharge still continued thin and watery, and occasionally mixed with blood, and the smell was peculiarly nauseous and disagreeable, and the excoriation of the skin was invariably greater if the discharge was allowed to rest upon the surface. Masses of white fungous projections were sometimes seen in the cellular texture, where it was exposed by the sloughing of the skin. A variety of applications were employed without avail, as in the former case, and the patient sunk under the disease on the 26th October; at which time the sloughing surface was about seven inches broad in one direction, and of nearly the same extent in the other, the sloughing process having thus continued for nearly four months." 12.

On examining the body it was found that the sloughing had destroyed nearly the whole thickness of the abdominal muscles, in the centre of the sore; the peritoneum lining them being loosely adherent to the surface of the liver, and both layers of this membrane being dark coloured, and almost, if not quite, dead. The cavity of the peritoneum, however, was entire, nor

was there any trace of inflammation except to a very small extent round the central opening. The structure of the liver was remarkably healthy throughout, and it was of its natural size; on making a section of it from behind, towards the slough, the line of its natural surface was also seen to have been preserved, but close to the peritoneal covering was a yellowish white mass about the size of a small nut, with slight condensation of the liver around it to the extent of an inch. This substance was broadest towards the slough, and its apex extended about half an inch into the substance of the liver. There was no appearance of the cavity in which the matter was originally confined, unless the white substance was to be regarded as a kind of cicatrix left by the complete obliteration of the cavity. The other viscera were quite healthy.

In order that Mr. Hawkins' theory on the nature of these cases may be rightly understood and properly appreciated, we may glance at some of the more prominent particulars of that which was formerly related in this Journal, and which we have not again transcribed.

That patient was admitted in December 23d, 1830. The tumor was accompanied with pain in the part and in the shoulder. He had been in the Royal Navy, and had been salivated for a liver-complaint in Bengal. The symptoms of the complaint for which he was admitted had existed seven weeks, and begun with acute pain in the right hypochondrium and with fever.

On the 15th of January a trocar was introduced, and three ounces of dirty-looking pus were drawn off. A portion of gum catheter was fastened in the wound, but slipping out in a few days it was never replaced. A disposition to bleeding was manifested in the cyst. The disposition to ulceration of the margins of the opening and germination of fungus commenced on the 18th of February. By the 12th of May the sore was four or five inches in a diameter, the direction of which was across the abdomen, and three or four inches in depth from above downwards. The patient died on the 12th of June, and prior to his decease, the sore extended beyond the umbilicus on one side, and beyond a perpendicular line drawn from the anterior spine of the ilium upwards, to the ribs on the other.

The following was the condition of the liver and its surface. The liver was united by old adhesions to the abdominal parietes, for some space opposite the sore. Through the opening formerly made by the trocar, now closed by soft slough, a probe passed down to the cavity of an abscess somewhat larger in circumference than a walnut, but not so deep. This abscess did not appear to be in the liver, but rather on its surface. There was indeed opposite the puncture a yellow discoloration, as of cicatrix and obliteration of natural structure by lymph, penetrating the liver for about an inch. The liver around was perfectly healthy, and the other abdominal viscera were sound.

Mr. Hawkins compares the preceding cases, and, pointing out some shades of difference, he shows that their prominent features were the same. He indulges in some reasoning to prove that the abscess was not in the liver. The notes of the dissections are sufficient to establish it. He argues also that the abscess was not in the abdominal muscles. Again the notes of the dissections render argument superfluous. It is very clear then, what the cases were not—let us glance at Mr. Hawkins' idea of what they were.

"My impression, from a consideration of the symptoms and peculiar progress of these cases, and the examination of the parts after death, is that the disease originated in one of those *encysted tumours*, which not unfrequently form on the surface or at the margin of the liver, below the peritoneal coat, and which may be termed *aqueous encysted tumours*. These cysts are met with also in a variety of other situations, on the surface of the spleen or kidney, in the spermatic cord, where they are called encysted hydroceles—in the orbit —in the brain—in the neck—or breast. It is in the ovaria, however, that they perhaps occur most frequently, where they constitute a form of encysted dropsy, described by my friend and colleague Dr. Seymour, and other pathologists, as depending on an enlargement of the Graafian vesicles. It is here also that they are seen of the greatest dimensions; in a patient for instance, whom I tapped for the first time in December, 1830, I have removed, within the last twelve months, at nine different operations, no less than 530 pints of watery fluid; so that in addition to the ordinary secretions of the body, there must have been formed in the sac on an average, during the whole of this time, about a pint and a half daily, and yet her health has not suffered materially except when the distension becomes very great."* 18.

Mr. Hawkins enters into some discussion, and proceeds to quote a number of facts, in order to illustrate the nature of the aqueous encysted tumor, in which he supposes the essence of the disease, in these very remarkable cases, to reside.

He adverts to the opinions of Dr. Hodgkin and Sir Astley Cooper, on the mode in which some encysted tumors originate. Taking a nosological position, he maintains that the aqueous encysted tumor forms one order of a class which contains besides—the hydatid encysted tumor—the sebaceous encysted tumor—the bursal encysted tumor—and the congenital encysted tumor. The sojourn of Mr. Hawkins in the repulsive and intricate regions of nosology is brief for he contents himself with abandoning the three last forms of tumor, and deploring the confusion that surrounds the descriptions of cysts, he promises to attempt a practical arrangement at some future time.

Mr. Hawkins prefers the term aqueous encysted tumor to that of serous cyst, because it better conveys the idea of a single membrane secreting its contents—because the fluid is rather of an aqueous than a serous character —and because the structure of the cyst undergoes modifications, in accordance with the alterations of the secretion.

Cases of aqueous encysted tumors on the surface of the liver have been specifically published, within these few years, by Mr. Brodie and Dr. Hastings. These cases will be found in the Medical Gazette, and in some of the Numbers of this Journal. Mr. Hawkins quotes these cases, but we think it would be unnecessary to repeat their particulars here. The characteristic symptoms have been—a fluctuating tumor over the liver, without the symptoms of abscess in the organ. On puncturing the tumor, a colourless fluid, containing no albumen, has issued.

Mr. Hawkins observes that, before such cysts attain an imposing magnitude, the pressure they occasion on contiguous parts will frequently have rendered a puncture necessary. This might be anticipated so naturally and so readily, and is so consistent with the effects of tumors of any kind, and,

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* "Since this was written, the quantity removed within twelve months, amounted to 620 pints."

we might almost venture to add, in any situation, that little need be said on so obvious a circumstance.

"The symptoms will also become obscure if the cyst is much thickened, so as to give very much the same feeling as that which is communicated by a solid tumour. Dr. Abercrombie mentions a case of this kind,* where fluctuation was with difficulty perceived, although a cyst was punctured, from which 9 or 10 pounds of clear serous fluid were evacuated, and when the patient died, a few days afterwards, another cyst was found between the liver and the posterior part of the diaphragm, containing no less than 18 pounds of clear fluid, in addition to the large quantity that had been extracted from the anterior cyst. The complaint was only of about a year's standing, but from their great size, these two cysts had so much injured the patient's constitution, that although he was relieved by the operation, his strength quickly failed. At the bottom of one of these cysts were two flat bodies consisting of a roll of soft gelatinous membrane which seemed to have been detached from the interior of the cyst." 29.

Mr. Hawkins remarks that, if the cyst be sufficiently large to admit of being distinguished through the abdominal parietes, it may be right to puncture it with care, in order to prevent its accidental rupture. An interesting case, in illustration of this risk, occurred at St. George's Hospital.

*Case.* A man fell from a waggon, and some empty baskets came down on his abdomen as he lay upon the ground. He was bled and carried to St. George's Hospital in a very low condition, with laborious respiration and violent pain, looking like a man dying of internal hemorrhage, but not so pallid as such a patient usually is. His pulse soon rose, and he was again bled, and had 36 leeches applied to the abdomen, which had become very tumid and painful. He died, however, a few hours after his admission in excruciating agony.—On opening the abdomen, about two quarts of slightly coloured serum were found in the cavity of the peritoneum, which had escaped by the rupture of a large cyst, that lay loose and flaccid on the right side, reaching from the diaphragm above, to which it was firmly united, nearly to the spine of the ilium. This cyst occupied almost entirely the place of the right lobe of the liver, a thin layer of which was partly expanded over the cyst, while the left lobe and lobulus spigelii, were much larger than natural, but perfectly healthy. The interior of the cyst was irregular, and contained, lying loose within it, a thick membrane which was called by some an hydatid, but which was, no doubt, a layer of lymph thrown out by the interior of the cyst, similar to the bodies already mentioned in Dr. Abercrombie's case, and disengaged by the rupture; for its outer surface corresponded exactly with the irregularities of the inside of the cyst, and it could be separated into many layers, the edges of which floated loosely from its inner surface into the serous fluid, which the cyst contained. The man appeared to have enjoyed good health, but no history could be obtained of his previous symptoms.

Mr. Hawkins quotes a case from the History of the Academy of Sciences, in which a *small* cyst in the lower and convex portion of the right lobe of the liver also appears to have been ruptured by a blow. But this was *in* the liver, and the circumstances render its real nature rather conjectural than certain.

Our author remarks, that it is not impossible that the cyst may be some-

* Abercrombie on Diseases of the Stomach, p. 356.

times spontaneously ruptured, and a cure accomplished by the absorption of the fluid from the peritoneal cavity. The following case would seem to comprise the whole of the evidence of such an occurrence that he has it in his power to present. His caution, in not venturing to pronounce on more than its possibility, is not undeserving of encomium.

*Case.* "A man, after an eruptive fever was attacked with a sense of weight and pain in the epigastrium and left side, with troublesome cough succeeded by a tumour in the epigastrium. About a month afterwards he suddenly felt the weight detached from the situation of the chest, and descend into the lower part of the abdomen, and chiefly into the right ileo-colic region. There ensued violent pain and vomiting for two hours, succeeded by a state of syncope and insensibility for two hours more; the patient continued in a state of violent agony for some time, but in eight days was out of danger, the tumour not having again made its appearance." 32.

Mr. Hawkins cites a case from the Journal de Medecine, in which two cysts in the liver were complicated with ascites—and the case related by our friend Dr. Hastings, in which large cysts in the abdomen were complicated with fluid in the cavity of the thorax. He next endeavours to fill up the very extensive gap, which even the superficial observer must perceive between these cases and the two with which the paper was opened. He proceeds to effect this desirable object by means of the following case.

*Case.* "A man was seized with pain in the right shoulder and right hypochondrium and slight jaundice, which were considered to indicate the existence of hepatitis. About a month afterwards there was a sudden discharge of blood and pus by stool, and a few days afterwards, after a fit of almost complete suffocation, he coughed up from the lungs a large basin full of puriform matter. From this dangerous attack he nearly recovered, but never regained his health entirely, and suffered from occasional rigors, at intervals of a few weeks, puriform matter being still coughed up in small quantities. He died two years after his first attack, when the following appearances were discovered.

A *cyst* was found on the anterior surface of the liver, containing some purulent and grumous fluid. The interior of the cyst was of a vascular texture, and it extended from the left lobe of the liver to the stomach and spleen and to the small intestines, which were all united together; but the communication with the intestinal canal was not perceived, and even the aperture in the diaphragm, by which the matter had been discharged into the lungs was cicatrized at the margin. The liver was large and of a firm consistence, but did not form any part of the abscess, nor were there any tubercles in it." 38.

Unhappily, a doubt too readily occurs to the sceptical mind. The rigorous reasoner is inclined to demand the proof that an *aqueous* collection had existed.

The application of the facts over which we have travelled to the two cases with which we set out, is chiefly contained in the following passage.

"From the peculiar nature of these cysts, and of their watery secretions, we should not expect that they would often suppurate, for the same reason that the serous and synovial membranes do not often form pus; we should naturally anticipate also, that when any thing like pus is formed in them, it would not be *healthy* pus, but partake more or less of the aqueous and mucilaginous secretions of the less inflamed cyst, and hence no doubt the cause of the peculiarity observed when the fluid was evacuated, and during the whole time they continued to discharge in the two cases alluded to. In Dr. Stocker's case,

however, supposing it to have been one of this kind, as much ulceration was produced in cellular texture, especially in the formation of the large cavity in the lungs which communicated with the cyst, the secretion would necessarily be mixed with more of the usual kinds of pus. It is remarkable, moreover, and confirmatory of my opinion, that when an *hydatid encysted tumour* of the liver suppurates, the cyst, which resembles the cyst of *aqueous encysted tumours* of this organ, forms a similar thick, tenacious, or watery and mucilaginous fluid instead of pure pus.

It seems in the next place to follow as a necessary consequence of the nature of the fluid, that there should be less of the rigors and perspiration which usually mark the formation and confinement of matter in ordinary abscesses; nor was this circumstance wanting in these two cases, and it may perhaps be looked upon as another diagnostic mark between an abscess of the liver, and suppuration in an aqueous cyst. In both of them the symptoms were rather those of intense suffering and irritative fever than of distinct suppuration, the indications of which, though sometimes obscure, are seldom altogether wanting in either the acute or chronic abscess in this important organ, and the rigors and perspirations are generally accompanied with more marked jaundice than in the aqueous tumour, even when suppurating; the skin being in one of these cases altogether free from a biliary tinge, and in the other the colour being a peculiarly light yellow." 40.

In the two cases which may be looked upon as constituting the basis of the essay, there were other peculiarities yet unexplained by the help of analogy and inference. These were the bleedings that occurred, and the fungus that was generated. In order to shew that both have been observed in cases of aqueous encysted tumour, Mr. Hawkins relates two facts that have been communicated to him by Mr. Brodie.

*Case.* A woman had a tumour in the neck apparently connected with the thyroid gland, which was punctured, and a small quantity of watery fluid evacuated, but the cyst now became filled with blood, and when re-opened, hæmorrhage continued to take place into its cavity. Mr. Brodie dissected out the cyst, which was thin and membranous, but the patient being of a bad constitution, sloughing took place, which process was also accompanied with a good deal of hæmorrhage, and the woman died of the disease.

The next case is intended to shew that a fungus will occasionally proceed from the cavity of an aqueous encysted tumour.

*Case.* A young woman attended as an out patient of St. George's Hospital with an encysted aqueous tumour at the upper margin of the breast, which fluctuated obscurely, and being punctured by Mr. Brodie several ounces of water were let out. The wound, however, did not heal, and the discharge continued from the cyst, the edges of the opening became thickened and everted and ulcerated, and an unhealthy fungus was generated, with a good deal of pain and constitutional irritation; a circular ulcer was thus formed by the growth of the fungus with very little loss of skin, which was about three inches in diameter, raised and prominent like the ulcer of fungus hæmatodes, but with a central depression leading into the opening of the cyst. There was a copious discharge of thin and very fætid fluid, the whole breast was enlarged and condensed around the cyst, and the skin around the ulcer to some extent had a dark inflammatory appearance. She was under these circumstances taken into the hospital, and the whole of

the diseased mass, including the breast, was removed by Mr. Walker. The wound healed readily, and the patient has since continued well.

Such is the chain of evidence and such the weight of facts brought forward by the labour and the ingenuity of Mr. Hawkins, to prove, or, rather, to render it probable, that the fungous ulcers observed in the two cases to which we have now so frequently referred, had their origin in an aqueous encysted tumour situate on the surface of the liver. Mr. Hawkins appears to be satisfied himself, and this, perhaps, may tend to the satisfaction of his readers. The unreflecting person immersed in the mechanical drudgery of practice, may think that it signifies comparatively little what the precise seat of the cyst or the abscess may have been. But those of a more philosophic mood must feel like Mr. Hawkins, that time and trouble are never misspent, when occupied in the strict investigation of truth. Positive reasoners or disputatious critics may doubt if Mr. Hawkins has fully established his case. They may find, or fancy, that the links of the chain are incomplete, and deny, in the absence of positive proof, the amount of probabilities urged by Mr. Hawkins. To their incredulity we shall not reply, and we leave this portion of his paper, with thanks to the author for the interesting facts he has collected and arranged.

The second part of Mr. Hawkins' paper is devoted to the consideration of the hydatid encysted tumour, which he, like many other respectable pathologists, is careful and anxious to distinguish from the aqueous. In order that we may start with a clear understanding of Mr. Hawkins' views and objects, we are tempted to transcribe his description of the hydatid, and the cyst in which it is contained.

"The *aqueous encysted tumour* in any part of the body is very commonly spoken of as an *hydatid*, but I think very loosely and vaguely, so that two diseases which in reality are quite distinct from each other, are confounded together. The resemblance, which has given rise to this error, is the circumstance of their being in each case, in general, a cyst containing water, but it would undoubtedly be much better to confine the term hydatid to the parasitic animal, the hydra hydatula of Linnæus, which may become deposited and increase, in some mysterious way, in any part of an animal body. The hydatid is sometimes found in a cyst, which is most probably formed out of the adjacent parts; so that the whole tumour may thus be called an *hydatid encysted tumour*, but in other cases the hydatids are found without any covering, or alteration of the cellular texture of the surrounding parts; in either case, however, there is the essential difference between this disease, and the aqueous encysted tumour, which is made by the presence of a parasitic animal in the one case, and not in the other. If there *be* a cyst around a quantity of hydatids, it is not to be considered that the cyst is an aqueous cyst of the kind we have formerly considered, which has no more tendency to have hydatids generated within it than the peritoneum has; for when hydatids *are* generated within a serous membrane, they are generally enclosed in a cyst attached to and nourished by the vessels of the serous membrane, in the same manner as when they are generated within the liver; they are also enclosed in a cyst, which is attached to, and nourished by the vessels of the liver. But in either case, whether the hydatid be enclosed in a cyst, or be merely situated in a cavity in the cellular membrane of any part, the hydatid itself has no attachment whatever to the living substance, it is not connected by vessels with it, and the hydatid is nourished by imbibition only, from the secretions of the animal in which it is generated.

The confusion between the two diseases has probably arisen in part from considering the cyst, in which the hydatid itself is enclosed, as constituting an essential part of the

disease, and as being in fact the *parent* hydatid, but the membrane which is nourished by vessels from the parts around, is no' to be considered, I think, in any case as more than a *cyst*, and the cyst itself with the hydatids enclosed in it may be spoken of, not improperly, as an *hydatid encysted tumour*, and the term hydatid tumour ought in no case to be applied to any tumour in which a parisitic animal is not found, nor the term hydatid to any cyst which does not possess an independent vitality.

The hydatid generated in the human body is commonly a mere globular bag, consisting of two coats, enclosing a watery or mucilaginous fluid, and if pressed out of a tumour entire, has been seen to contract, so as to alter its figure, and if broken, will roll up in a manner very different to what takes place from the mere mechanical contractility of an elastic dead membrane, and it differs from the hydatid of the sheep, in which animal hydatids are so frequently found, in this respect, that the latter, the *tænia hydatigena*, has generally a mouth and neck added to its globular body, and is apparently endowed with a kind of locomotive power in addition to a vital contractility of a lower kind. I would observe, however, that the two species of hydatid are occasionally intermixed, or there is less essential difference between them than is generally imagined, for the hydatid of the sheep has sometimes no neck, and the human hydatid (Mem. of Med. Soc. of Lond. Vol. 2, p. 516,) has sometimes as distinct a neck, as is usally seen in those which are taken from the lower animals." 47.

Mr. Hawkins then proposes, as other physicians and surgeons have done, that the use of the term hydatid should necessarily imply the existence of hydatids. So reasonable a request should surely be complied with. The present portion of his paper is chiefly confined to the hydatid encysted tumor in the liver.

The cyst containing hydatids in the liver varies in its texture and its thickness; sometimes it is thin and transparent—sometimes thick and firm—sometimes converted in part into cartilaginous or osseous matter. The fluid also differs in different cases. Sometimes it is thin, watery, nearly colourless, and not coagulable by heat—more often mucilaginous, and of a yellow or geenish-yellow colour; and when the cyst has become much changed in its texture, it may be thick and tenacious, or contain a quantity of greasy secretion, like butter.

The number and appearance of the hydatids vary. Sometimes there is a single large hydatid almost in contact with a thin cyst, with scarcely any secretion between its coats and the cyst itself. At other times there is a large quantity of thin fluid, in which a few globular hydatids, seldom larger than a small walnut, are seen floating, or a great number of smaller hydatids, with thick mucilage only between them of a dark colour; or again, in other cases, the cyst does not appear to have yielded proportionably to the rapid increase of these singular bodies, and the cavity is filled by a great mass of soft membranes, composed of the remains of hydatids broken down by presure, and looking like half-dissolved isinglass. A single large hydatid is not so often seen in the liver as in the breast. Mr. Hawkins thinks that some of the reputed instances of such hydatids are really examples of aqueous encysted tumors which have been inflamed, and from which a membrane, formed in the interior, and having the shape of the cyst, has been subsequently detached.

Mr. H. thinks it likely that the severity of the symptoms of encysted tumor of the liver, is proportioned to its partaking more of the hydatid, and less of the aqueous character. But although the former is almost always

fatal before it has attained the enormous size which the latter is permitted to assume, yet, if its increase is not very rapid, its magnitude may be considerable before serious symptoms supervene. Hydatids, indeed, occasion little suffering in any situation, unless inflammation be set up, and, even should this be the case, if an opening is presented by the natural channels, by ulceration, or by art, little danger need be apprehended, excepting in important internal organs.

If there is no exit for the issue of the hydatids, a small tumor, when inflamed, becomes dangerous or fatal. In the brain, they will be destructive at an early period, and Mr. Guthrie has related a case, in which the irritation they occasioned in the orbit was sufficient to destroy the individual.

Like the aqueous encysted tumors of the liver, these are usually observed on the anterior and convex part of the organs, or partially imbedded in its substance.

The symptoms occasioned by the hydatid tumor in the liver must be necessarily modified by its size and situation. If the vessels are compressed, ascites may ensue; or if the passage of the bile through the ducts is impeded jaundice may result. It would be useless, at all events fatiguing, to cite cases in illustration of a consequence so obvious and so necessary. A moderate amount of reflection and experience would suggest the possibility or likelihood of the facts collected by our author.

The common symptoms are few and indistinct. Unless the proportion of fluid is considerable, no fluctuation may exist, and all the signs of disease that are observed may be such as would result from the physical alterations of size or form. If fluid is perceived it is desirable to distinguish it from that of the aqueous encysted tumor, and from abscess. From the former it would probably be difficult to discriminate it; the ordinary marks of inflammation and of suppuration may usually suffice to characterize the latter. Sometimes, when the presence of fluid is dubious, irregularity of the liver perceived through the abdominal parietes has been thought to constitute a means of diagnosis. But this sign is shared with malignant deposits in the organ, and with all morbid growths that consist of unequal masses.

Complications may occur that render the diagnosis of hydatids still more difficult and much more doubtful. Mr. Hawkins quotes a case in which the gall-bladder was distended with eight pounds of bile, inclosed in several concentric bags. The hydatids were loose in the substance of the liver. An aqueous encysted tumor, containing six pounds of water, was also attached to the spleen.

Hydatids have been observed to follow an injury. It is singular that a disposition to their formation has been observed in succession in various portions of the body. The following case is quoted by our author from Mr. Hill of Dumfries.

"A little girl received a hurt on the side by a fall from a horse, which was succeeded by a tumour of the liver containing hydatids, the circumstances of which I shall afterwards have occasion to allude to. This tumour being quite well, there appeared thirteen years afterwards three large tumours on different parts of the abdomen, which seemed to be seated no deeper than the muscles, and were attended with a good deal of fever and pain. At last one of them, situated between the ribs and the spine of the ilium of the left side broke into the intestines, discharging a great number of hydatids with much blood and pus by stool.

The other broke outwardly, and for three or four years afterwards, at different periods, tumours appeared on several parts of the abdomen, from all of which hydatids were discharged. Notwithstanding which, however, the patient ultimately recovered." 153.

Mr. Hawkins inquires if an hydatid encysted tumor, in an uninflamed state, is to be opened. He appears to arrive at that conclusion to which we suppose the experience of most practitioners and the feelings of most patients would lead both the parties, that unless there be really urgent symptoms, the knife were better left alone.

The hydatid like the aqueous encysted tumor may be ruptured, by accidental violence or injury. These instances are cited; in one a fit of passion was the agent.

If the symptoms are severe or suppuration is established, and the postulates are probably in one sense synonymous, no practical persons can dispute, or have disputed the necessity for an operation.

Nature has operated by ulceration in more than one manner. Cases are related, and are probably familiar, where the tumor was found to burst externally, and hydatids were discharged from the opening on the surface. In other cases the evacuation has been through the colon, or some inferior part of the intestines. An instance of this was communicated by Mr. Keate.

*Case.* A gentleman had constant pain in the epigastrium and other symptoms of dyspepsia, the cause of which was not apparent for several years, at the expiration of which time his health was so much impaired, that he was exceedingly emaciated, and his life was despaired of. He suddenly felt, after an exertion, an inclination to evacuate the contents of the bowels, and began to discharge an immense quantity of watery fluid with what he termed portions of flesh, but which proved to be hydatids. One vessel after another was thus filled, till it was supposed that near two gallons must have been discharged. After this his health was restored, and he still remains well,—several years having now elapsed.

Dr. Blackmore, of Plymouth, has related an example of opening into the cavity of the duodenum. A lady had suffered from indeterminate biliary symptoms for years, when a violent vomiting and purging of hydatids supervened. She died in a month after this occurrence, and a cavity connected with the posterior part of the right lobe of the liver was found to communicate by an ulcerated opening with that of the duodenum. The cavity in question was lined with lymph, and contained about a pint of bilious ichor, mixed with coagula of blood: it was emptied of hydatids.

The hydatids have sometimes been discharged from the lungs, by means of an ulcerated opening through the diaphragm. In a case recently related by Dr. Billing, an external opening formed in the abdomen, after hydatids had been expectorated from the chest. The patient died, and examination disclosed the gall-bladder filled with dead hydatids, a route for which had been opened in one direction through the diaphragm and lungs, and in another through the abdominal parietes.

Mr. Hawkins concludes by some remarks upon the treatment.

He observes that in these cases of encysted tumor of the liver, the symptoms occasioned by the pressure or the irritation it excites, may be readily

mistaken for those of inflammation more acute than it actually is. Attention to the state of the pulse and of the system, and a knowledge of the diseases that are apt to occur in the organ, must form the guides of the rational practitioner. Mr. Hawkins seems to hint that iodine was productive of temporary benefit in a case that occurred at St. George's Hospital.

Perhaps the utmost power enjoyed by medicine consists in the palliation of urgent symptoms; and the surgeon has no more effectual remedy than evacuation of the cyst, and the use of those means that may tend to occasion inflammation of its interior and obliteration of its cavity. Mr. Hawkins arranges his remarks under five distinct divisions.

1. He thinks that the aqueous encysted tumor should be punctured in its uninflamed state by a trocar—that little pressure should be used—that if the fluid is tardy in its flow, a cupping-glass, as practised and recommended by Mr. Brodie, should be applied in preference to rude squeezing with the hand, —and that every precaution should be taken to avoid the admission of air into the cyst, and by gentle compression to diminish its dimensions.

2. If suppuration has occurred, he would puncture the suppurating cyst with a trocar, introduce a gum catheter to give exit to the fluid, and employ as much prudent pressure as will tend to occasion diminution of the cyst. Mr. Hawkins seems indisposed to adopt the views or respect the fears of those who object to the use of a cutting instrument in abscess of the liver, lest a sufficient degree of adhesion between the abdominal parietes and the abscess has failed to be established.

3. Mr. Hawkins recommends a similar plan of treatment when the tumor is of the encysted hydatid kind. The hydatids compressed and broken down, issue without difficulty through the seemingly narrow outlet of the canula. If the opening is insufficient, it can subsequently be enlarged.

4. If the fluid be purulent it would probably be less dangerous to leave the aperture open than to close it. But perhaps it would, at all events, be better that the orifice should be in the first instance small. For it must be recollected that the cyst of hydatid, like that of aqueous encysted tumors, partakes more or less of the nature of a serous membrane; it is, like the natural serous membrane, indisposed to secrete pus, when inflamed, and if any purulent secretion is found, it is mixed with lymph and with much of the aqueous and mucilaginous fluids that are secreted in the uninflamed condition. The pus is still formed by the vessels of the cyst, not by granulations as in the cyst of an abscess; the cavity, therefore, does not fill up by granulation at all readily, but the sides still remain more or less disposed to adhere by lymph if they are kept in contact by such pressure as can safely be employed. Provided, therefore, the centre be open, and the symptoms carefully watched, it is, he conceives, right to dimish the size of the cavity as much as possible by adhesion, and not at once, to encourage suppuration throughout the whole cyst, by allowing a free access of air by means of a large opening.

In illustration of the good effects following a small opening, Mr. Hawkins quotes the case of Mr. Attenburrow of Nottingham, an accomplished and experienced surgeon, whom we are happy to mention as our friend. That case has been noticed previously in this Journal, but we cannot resist introducing the principal features again.

*Case.* A girl about 14, fell down stairs, and a month afterwards a swelling formed in the thigh, which increased without pain or disturbance of the health, till in ten months' time the length of the tumour from the pubes downwards was twelve inches, its breadth nineteen, and its circumference at the base thirty-three inches. A large trocar was passed into the tumour, and a quantity of dark-coloured matter evacuated, the stream being occasionally interrupted by large portions of broken-down hydatids. Strong pressure was applied, and several times the bursting of an hydatid was felt, which was invariably succeeded by a stream of clear serum, which was again followed by hydatid cysts and purulent fluid. Seven pints were thus evacuated, after which pressure was applied. About three weeks afterwards a pint and a half of purulent fluid was let out, which was attended with some fever. Pressure was again applied, and there seemed to be no further return of the swelling.

5. When an hydatid encysted tumour has been artificially or naturally opened, it has been found that when the discharge became unhealthy, ablution of the cyst by warm water or some gently stimulating lotion was productive of beneficial results.

A case of aqueous encysted tumour of the kidney constitutes, as we remarked, a species of appendix to the preceding paper. The case is not deficient in interest, and we therefore present an abbreviated account of it.

*Case.* John Connell, æt. 6, admitted into St. George's Hospital, October 18, 1832, under the care of Dr. Seymour.

Three weeks before his admission the boy had been struck down, and perhaps run over by a carriage. Great pain in the abdomen and swelling succeeded. In four or five days the latter subsided, and the bowels were with difficulty acted on. Ten days after the accident a swelling slowly appeared in the right side of the abdomen. The child became emaciated, feverish, and suffered from occasional pain in the tumour.

The following was his condition a few days after his admission, when Mr. Hawkins was first requested to see him.

The whole abdomen seemed large and distended, but especially the right side, which was tense and firm, and occupied by a tumour which extended from the right hypochondrium to the right iliac region, and from the back of the loins to a little beyond the linea alba, the ribs and ensiform cartilage being considerably pushed upwards by the bulk of the swelling. The intestines were pushed across to the left side, or covered by the tumour, for no sound of air could be detected below the swelling, though it seemed as if deep pressure enabled the edge of the liver to be felt by the finger. The tumour evidently contained fluid, fluctuation being clearly felt by the fingers being placed laterally, but more obscurely, from above downwards, and it seemed as if the fluid was divided into two portions by a line running obliquely across the abdomen, just below the umbilicus.

There was occasional pain, and tenderness on pressure at the lower part of the abdomen. The pulse was rather quick and feeble, the tongue white, the bowels constipated, the urine free but rather scanty.

Mr. Hawkins mentions several opinions which then, and subsequently, were entertained on the nature of the tumour. As none were actually correct, we may safely consign them to silence and oblivion. The treatment

consisted at first of calomel, castor oil, and leeching. A temporary amelioration was observed, but a change for the worse was experienced in the latter part of November, and fever with pain in the abdomen supervened. On the 1st December Mr. Hawkins made a small puncture in the right side of the tumour, and drew off 18 ozs. of nearly transparent clear fluid. On the application of heat it almost entirely evaporated, leaving a small quantity of muco-extractive matter without any trace of albumen. It became the general opinion that this was a cyst connected with fungoid disease of the kidney.

The child grew worse, became affected with symptoms of cerebral irritation, and even with convulsion, and died on the 25th of the month.

"On examination after death the tumour was found to consist of a single cyst, containing about five pints of fluid, the greater part of which was clear and transparent, like that which had been previously evacuated, and, like it, did not coagulate at all on the application of heat; the remainder contained a good deal of the white semi-purulent matter which is usually seen in serous membranes, or in cysts, which have been inflamed. The cyst was tolerably firm in front, but towards the back and inner part it was so thin and soft as to tear with facility, and scarcely to allow of being dissected out. The cyst had protruded slightly below Poupart's ligament through the femoral ring, and reached upwards to the liver, raising the ribs, and pushing the liver towards the left side and into the chest; the other viscera were pushed to the left side of the abdomen, and the cyst was on that side covered by the peritoneum belonging to the colon;—in front it was adherent to the inner surface of the abdominal muscles, and behind to the iliacus internus and psoas muscles, and to the side of the lumbar vertebræ, where it was thinnest. It thus occupied the whole of the right half of the abdomen and iliac fossa, and encroached a little upon the pelvis, being external to the peritoneum.

On the inside and towards the fore part of the cyst was seen the ureter, which was traced upwards between the layers of which the cyst was contained, towards the right kidney, which was situated at the back part of the cyst towards its upper and inner part. The ureter was tortuous and elongated, so as to make it difficult to trace its course, but it entered the kidney in the usual way, and was of its common size, and had no communication with the cyst; but there were two small orifices in the pelvis of the kidney, which seemed to have been the result of ulceration, and near these orifices the ureter and pelvis of the kidney were of a black colour, and tarnished the probe, as sulphuretted hydrogen does. The kidney was of the usual size, and healthy, and its anterior surface formed as it were a part of the cyst, as the cyst was intimately connected with the margins of the organ, and could not be traced over its surface; and the surface of the kidney, which was thus seen in the interior of the cyst, was flattened, and rough, and the covering thicker than usual. About five inches from the kidney towards the inner part of the cyst, was a small body, about the size of a walnut, which projected into the cyst, and was soft and lacerable, and covered by a very thin coat; this body proved on examination to be a *third kidney*, consisting of a single lobe, with the cortical and tubular part perfect, and having a single mamillary process, and calyx, but no excretory duct could be traced.

All the other viscera were healthy." 184.

We need scarcely add that Mr. Hawkins believes this an instance of aqueous encysted tumour of the kidney. We must now take our leave of this subject, and we beg to offer the expression of our thanks for the trouble which the indefatigable author has taken, and the light he has succeeded in throwing on some facts previously, perhaps, confused by obscurity.

## IV. On the Ulcerative Process in Joints. By *C. Aston Key*, Surgeon to Guy's Hospital, &c.

Mr. Key commences by a compliment to Mr. Hunter, and a faint regret, that the process of ulceration has not received from that great pathologist the attention which he has bestowed on the adhesive and the suppurative actions. Mr. Key observes that the process of destruction is investigated with more difficulty than that of deposition, because its products are removed from our immediate cognizance and examination. He remarks that the ulcerative action is modified by the circumstances of structure, of texture, and of vital organization. He looks on ulceration as affected by structure in three modes or degrees—by that of a highly vascular character—by that possessing a lower degree of vascularity—and by that in which the least amount of organization is observed.

Yet his observations, founded, as he professes that they are, on fact and on induction, are not altogether insusceptible of criticism. Perhaps an exception may be taken to the following generalization.

"The remarkable disposition to ulceration in those textures that are well supplied with blood, must be obvious, if not familiar to us all. In the mucous membranes it is especially observable; these parts abound in vessels of large size, and are liable, under moderate degrees of inflammation, to pass into the ulcerative state; the mucous lining of the intestine, holding a first rank among vascular structures, quickly ulcerates under some forms of muco-enteritis; that of the trachea being somewhat less vascular, is less prone to ulceration. The lining membrane of the mouth speedily exhibits an apthous surface, or even a deeper extent of ulceration, from trivial causes of inflammation; and the gums, disposed as they are to ulcerate, have this disposition still further increased, when they become spongy and more vascular." 210.

The sense and the general bearing of the passage would lead the most careful reader to infer, that vascularity of texture induces of itself a decided disposition to the ulcerative action. Yet it may be doubted if the mucous membrane is more highly vascular than the kidney, or the liver, or the testis, and when we regard the tissues and the structures most liable to ulceration, we shall find that they are those which are seated on the surface, or connected with the surface of the body. The cornea is less vascular than the choroid or iris, yet the former is most prone to the ulcerative action. The scalp has a much lower vascular supply than the cerebrum, yet ulcers of the latter are extremely rare, whilst those of the former are far from uncommon. If we take the instance of the articulations, the subject of the paper of our author, we shall find the least vascular texture most subjected to ulceration. The synovial membrane has a much higher vital organization than the cartilage, yet the latter is the texture peculiarly disposed to the action we are speaking of. It requires a large acquaintance with the healthy and the morbid actions of the frame, and a very cautious spirit of induction to indulge in such generalizations as Mr. Key has advanced.

Mr. Key seems inclined to deny that the absorbents are engaged in the act of ulceration. He hints a suspicion, which gradually improves almost to a belief, that their office is limited to the modelling of the body in soundness and in health, whilst the veins are the agents of the ulcerative process.

The facts and the reasonings on which he grounds this heterodox opinion may appear inconclusive, if not inconsequential, to those accustomed to the analysis of evidence.

"There are some circumstances connected with this disposition to ulceration, that tend to throw some doubt on the received opinion, that the absorbents perform the office of removing parts that are under the influence of ulceration, and to refer some share, if not the whole, of this action to the veins. It is by no means satisfactorily ascertained what part the veins and the absorbents respectively take in healthy or nutritive absorption. In the absorption produced by disease, the nature of the process is still less definitely understood; and it yet remains a problem for the physiologist to solve, whether the veins are not mainly engaged, or at least assist, the absorbents, in the process of ulceration. The above examples favour this supposition; which is further strengthened by the fact, that all structures previously to being removed by ulceration, become unusually vascular; as if a more complete developement of the sanguineous tissue were essential to this mode of absorption. We shall find, when describing articular ulceration, that this view of the process receives strong confirmation from the peculiar circumstances attending the ulceration of cartilage.

The action of the veins in producing ulceration of a villous surface, as that of the intestinal canal, is by no means rendered improbable by the membrane being abundantly furnished with absorbents. Gendrin* mentions that, in those who have died with ulceration of the intestine, he has usually found the veins either filled with pus, or inflamed upon their inner surface. The same author relates an experiment of injecting pus into the pleural cavity of an animal, and at the expiration of twenty-four hours finding, on dissection, a considerable quantity of the fluid in the branches of the thoracic veins. Other observations might be adduced in support of the opinion, that the function of the absorbents is confined to nutrition, to the removal of interstitial fluids, and to the preservation of the form of the body during growth, or as Mr. Hunter has termed it, modelling absorption; and that progressive absorption or ulceration is effected through the agency of the extreme branches of the venous system.†" 212.

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* Hist. Anat. des Inflammations, p. 707, tom. I.

† "Sir Astley Cooper has in his collection an ulcer of the leg very successfully injected, in which the veins are developed in a remarkable manner, they are numerous and large, and surround the margin of the ulcer. There is also in his collection another ulcer in which the absorbents of the leg have been injected; but they appear to be neither increased in size nor in number; the absorbents that in the sound state of the limb took their course through the site of the ulcer are cut through by the disease, and each absorbent can be seen to terminate in a vascular granulation.

Professor Coleman of the Veterinary College, at my request, made the following experiment. He caused to be inserted in the inner part of the thighs of an ass a rowel, which at the expiration of four days had established a copious suppuration. On the fourth day a small quantity of the prussiate of potass was inserted in each sore, and allowed to remain six hours, at the end of which period the animal was killed. To ascertain which of the two systems, the venous and the absorbent, had taken up most of the *salt*, I removed some blood from the iliac veins on both sides, and some from the mesenteric veins; and Mr. Coleman's dissector collected half an ounce of fluid from the thoracic duct. These I submitted to Mr. Alfred Taylor, our lecturer on medical jurisprudence and chemistry, who favoured me with the following analysis. "No. 1, the blood from the iliac veins, contains the prussiate in large proportion. No. 2, the serum from the thoracic duct contains it in about the ratio of $\frac{1}{50}$

It cannot escape observation that, in different parts of the preceding passages, Mr. Key has advanced his suspicions or opinions in a vague, if not a contradictory manner. Yet the tenor of the whole would lead us to suppose that he leans in a decided degree to the belief, that the veins are the main agents of ulcerative absorption, and the absorbents of that which is necessary to nutrition, and the preservation of the form and constitution of the body. His loose and unconnected style makes it difficult to do justice to his reasonings or his facts. But his principal arguments would seem to be these—first, that unusual vascularity precedes the ulcerative process—secondly, that pus has been observed in the veins of intestines affected with ulceration—thirdly, that after injections of pus into the pleura, that fluid has been found in thoracic veins—and, fourthly, that prussiate of potass being placed in a sore in each thigh of an ass, the iliac veins were discovered to contain it in a larger quantity than the thoracic duct.

We may remark that experiments and pathological facts have proved, or seemed to prove, that the veins do act in absorbing poisons, or in forming the medium by which they are conveyed into the general system. Of this no reasonable doubt can be entertained.

But Mr. Key does not appear to be content with this, and although he does not expressly assert, he may very fairly be said to imply, that the absorbents are excluded from a similar power. Again we return to his specific arguments.

1. To say that vascularity precedes ulceration, is to say little more than that this is the result of inflammatory action, a position which has never been denied. But we doubt if Mr. Key's exclusive assertion is strictly and universally correct. We have seen ulceration on the free surface of articulating cartilages, without the smallest appreciable trace of vascular injection. Some ulcers of the cornea, in strumous children, are so free from preceding or attendant vascularity, that at times they are only discovered by the irregular reflection of light which they occasion. A little consideration might probably multiply such instances, tending to display the hasty incautiousness of Mr. Key.

2. Pus has undoubtedly been found in the veins which pass from abscesses and ulcers. But this, though true, is not so exclusively the fact as Mr. Key would appear to think. We have heard Mr. Brodie observe, that he has seen the absorbent vessels passing from ulcers in the mucous membrane of the intestines, filled with the same description of secretion as that displayed on the surface of the ulcers. We have witnessed a similar appearance ourselves. When we look at disease on an extensive scale, we find this fact sufficiently established. Out of a considerable number of cases of puerperal peritonitis, pus was discovered in the absorbents passing from the inflamed and suppurating uterus in a very large proportion. The state-

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of No. 1; and No. 3, the blood from the mesenteric veins, after standing six days, shows evidence of the prussiate in the ratio of about $\frac{1}{50}$ of No. 2, and therefore of about $\frac{1}{2500}$ of No. 1. The last specimen, No. 3, did not at first exhibit any appearance indicative of the prussiate on the application of the reagent; but it is by no means unusual for the precipitate to show itself after the lapse of a few days; the re-action being slow when the proportion of salt is minute, and any organic substance, as albumen, at the same time present."

ment of the facts will be found in a late number of this Journal, and specific details could be readily referred to, did the occasion require us to enter on particulars.

When we look at the phenomena displayed on the inoculation of a morbid poison, the agency of the absorbents is distinct and undeniable. We could wish Mr. Key to explain the bubo of syphilis, and to tell us how and why the glands in the groin are so frequently, we might almost say so constantly affected, after the reception of that disease. The chain of evidence, from the primary sore to the secondary symptoms, is in many instances so plain and so consistent, that we cannot but feel the most extreme surprise at the neglect which it seems to have received from Mr. Key. That gentleman, like many ingenious and able individuals, has overlooked an obvious and a common fact, in his eagerness to reason and observe minutely.

3, 4. The experiments he mentions may tend to show, that poisonous substances find their way into the venous system, but they also prove that they are contained in the absorbent. It is true that the blood from the iliac veins contained the salt employed in a larger proportion than the serum drawn from the thoracic duct. Yet still that serum *did* contain the poison, and this of itself, is sufficient to disprove the idea of Mr. Key, that the action of the absorbents is confined to the modelling process of nutrition.

An objection has been urged to similar experiments, which appears to have escaped the observation of our author. It has been stated, and we do not vouch for the fact, that the absorbents communicate with the venous trunks, independently of the channel of the thoracic duct. It is incumbent on those who draw conclusions from the condition of the blood, in such trunks, to satisfy others and themselves, that this anatomical statement is erroneous.

We need not pursue the discussion further. It is evident that the subject is one that requires and deserves elucidation, and that much observation and careful experiments are necessary to enable us to arrive at any satisfactory conclusion. It is evident, too, that so far as the facts which we know can be depended on, the absorbent and the venous system would seem to participate in the office and the power of producing ulceration, and conveying foreign materials to the system. We are not warranted in asserting, perhaps we are not even justified in suspecting, that the action of the absorbents is limited to the healthy process of nutrition.

We proceed with the remarks of Mr. Key. He reiterates the observations of preceding authors, and expresses the experience of every pathologist when he states, that the serous membranes are less disposed to ulceration than the mucous—that the fibrous evince an indisposition to it—and that, in the process of necrosis, the ragged appearance displayed by the enclosed portions of sequestrum, is owing to the absorption effected by vascular and flocculent processes, arising from the membrane that forms and supplies the new bone. This may be considered more true than it is now.

"In a manner analogous in many respects to the process of removing dead bone, does nature achieve the task of absorbing the cartilaginous structure, covering the articular extremities of bones. These structures possess but a low degree of organization; in their healthy condition they present very few of the characters of animal vitality; they exhibit scarcely any trace of red blood-vessels, and for obvious reasons, their supply of nervous influence is not more than sufficient to connect them with the surrounding structures, as

part of a whole. Under disease they exhibit that want of action which might be anticipated from the limited extent of their organization. In acute inflammation of a joint, while the synovial membrane and ligaments are much altered, the cartilage appears unchanged in colour or in texture, and apparently uninfluenced by the increased action going on in the surrounding parts. The cartilage becomes, under disease, softer somewhat in texture; but this change may be as well attributed to the absence of pressure, as to the effect of inflammatory action: for healthy joints when kept long at rest, are found to undergo a similar change on their cartilaginous surface, from the want of that pressure to which they have been accustomed, and which may be necessary to the preservation of their due consistence. There are, however, some forms of inflammation under which the cartilage, very early in the disease, undergoes a change of structure; these instances are much less frequent, and may be looked upon as exceptions to the ordinary rule." 217.

The resemblance mentioned may be true in fact, but it is not therefore analogous in principal. In the absorption of a sequestrum, the vessels of an inflamed or highly organized texture are engaged in the absorption and removal of dead matter. In the common ulceration of the cartilage the latter is not dead, and the ulcerative absorption is probably conducted as in other tissues of the body.

Mr. Key observes that debility combined with irritability, a term "which implies a disposition to action without proportionate power," confers a tendency to ulceration. We need not cite his instances, and we will not quarrel with his definition. We will merely add, that he thinks the preceding remarks will throw some light upon the mode in which articular ulceration is effected. This reasonable anticipation we may now endeavour to fulfil, by explaining the process described by Mr. Key.

He commences by the assertion, that there are four modes in which ulceration of the cartilage takes place. The analysis of a recent work of this author has convinced us that it is difficult to explain his opinions or pursue his reasoning. Perhaps they would lose nothing in clearness or in vigour, were they more disposed in that natural order which analytical and mathematic studies are adapted to display and to enforce. We return however, to the subject, and the reader will probably excuse the hasty pique of the jaded critic.

It appears then that ulceration of the cartilage takes place in four ways, and so far as we can sift Mr. Key's arrangement, those modes of ulceration are the following—first, it occurs as a result of inflammation of the synovial membrane. Secondly, it may be seen "in the rapid progress of disorganization that follows a wound into a joint." Thirdly, but here Mr. Key has baffled our eager curiosity, for the third head seems to treat of the degeneration of cartilage into fibrous structure; and the section, if section it deserves to be denominated, is terminated by a glance at the removal of cartilage in old persons, and a candid admission that the author is unacquainted with the nature of the process. Fourthly, ulceration of the cartilage commences on the surface attached to the bone.

Let us look in detail at these modes of ulceration. And first, of that which results from inflammation of the synovial membrane.

"I am inclined to believe that inflammation of this membrane is the most frequent cause

of ulceration of the cartilage. This opinion I have been led to adopt from the examination of a considerable number of diseased joints, in which ulceration of cartilage has been found to exist in different degrees of progress, from its most advanced stage, in which the bone has been entirely denuded, to the very incipient abrasion of its surface or margin. The history of some of these cases, together with the morbid appearances, has also satisfactorily proved the existence of a long continued synovial affection, before any alteration of the cartilaginous surface could have taken place; as the cartilage in some has been quite sound, with the exception of a slight loss of substance at the edge of the bone where the synovial membrane is reflected from it; while the symptoms of diseased joint have existed for many months, with pain over a large part of the synovial surface, and general swelling of the joint. It is not uncommon to find the extremity of one bone extensively ulcerated, especially in the knee joint, while the other may exhibit the same disease in an incipient state, and thus show the course which the diseased action has taken. The tibia is not unfrequently seen wholly deprived of its cartilage, and one or both semilunar cartilages destroyed, while the cartilage of the femur is but partially denuded, and that of the patella sound, with the exception of its margin, which has evidently suffered in texture from its continuity with the altered synovial membrane." 219.

It has never been denied, and the daily observation of cases proves that ulceration of the cartilage not unfrequently follows synovial inflammation. We might mention many undoubted instances of this occurrence. Mr. Brodie in his admirable philosophic work on Diseases of the Joints, has made the observation in the following terms.

"I have before observed that ulceration of the articular cartilages is not unfrequently complicated with inflammation of the synovial membrane. Sometimes the one, and sometimes the other is the original disease; in like manner as we find ulcer of the cornea of the eye, in some cases the cause, and in others the consequence, of inflammation of the tunica conjunctiva. In the very advanced stage, when the organization of the joint is completely destroyed, this complication must always exist; and it is unnecessary to adduce evidence of this fact. But occasionally the two diseases are combined together in a more early stage, and previous to the establishment of suppuration." 221.

But Mr. Brodie has not admitted, nor will the study of actual cases incline the majority of surgeons to allow, that inflammation of the synovial membrane is the *most* frequent cause of ulceration of the cartilage. Mr. Key brings forward no positive facts in opposition to the long and convincing array to be found in Mr. Brodie's work, a series which might readily be infinitely lengthened from the case book of a diligent hospital student. On this point, therefore, we join issue with Mr. Key.

The succeding paragraph must also detain us.

"The inflammation of the synovial membrane that leads to ulceration of cartilage in the ordinary strumous affection of joints in the adult, is not, as far as my observation goes, of the most acute kind. This form of inflammation in most cases is readily controlled by remedies; probably, because it is more early attended to than subacute inflammation, and treatment more promptly applied. The less acute forms of the disease, assuming various shades of activity between the chronic and the acute forms, rarely occur for any great length of time, without the cartilage participating in the mischief. This may in some measure depend on the peculiarity of those constitutions, in which subacute inflammation seems to have a spontaneous origin." 220.

Mr. Key asserts that the *ordinary strumous* affection of joints in the adult,

is ulcerated cartilage, following inflammation of the synovial membrane. Wit the utmost diffidence we demand his proofs. The object of Mr. Brodie's work, a work essentially founded upon cases, is to shew that the *ordinary* strumous affection is disease of the cancellous structure of the bone. The proofs of that position are spread through sixty pages, and founded on the record of many dissections. And yet this laborious structure of induction is levelled by Mr. Key with one brief sentence. Let not our meaning be mistaken. We do not pit name against name, and thrust Mr. Key and Mr. Brodie into the arena, to contend like gladiators, for the amusement or the instruction of the public. But the latter gentleman has published a work philosophical in its execution and conception, and tending to the establishment of certain conclusions. To that work and that gentleman Mr. Key refers, in terms of merited eulogium. And yet if our poor understanding may be trusted, the statements of Mr. Key are diametrically opposed to some of the most prominent and proved of these conclusions. Again we require the proofs of Mr. Key.

There are other points in the paragraph we have selected, which call for critical remark. He observes that the ordinary strumous affection of joints in the adult is not of the most acute kind; yet, with some apparent inconsistency he affirms, that it yields more readily to remedies, because it is attended to more early than subacute inflammation. He then goes on to remark, that the *less* acute vary between the chronic and the acute, and he ends by attaching an origin in constitutional peculiarity to inflammation of the subacute species. We confess with shame, that we cannot comprehend the meaning of our author, and we own that we escape with satisfaction from the labyrinth of terms.

We pass to the description of the ulceration itself.

"The first circumstance that strikes us on opening a diseased joint is, the different degrees of ulceration in the articular surfaces, and the different extent to which the interarticular cartilage and ligaments have suffered. This will depend upon the part in which the diseased action has commenced, which perhaps in most cases is determined by accident, as the seat of the blow or sprain which may have excited the inflammation, or the form of the joint producing uneqal bearing upon the surfaces, and thus determining the inflammation to that part where the pressure is greatest. The inner part of the knee-joint usually exhibits the most extensive ulceration on account of the oblique bearing of the femur, and its consequently unequal pressure on the inner part of head of the tibia. We therefore find the inner semilunar cartilage more often destroyed than the outer, and a corresponding destruction of the cartilage covering the inner condyle of the femur and inner part of the head of the tibia. The patella and the extremity of the femur are the parts on which the ulcerative process can be best traced on account of the disease being in these less advanced. In the former bone the first part that commonly gives way to ulceration is the margin of the cartilage, where the synovial membrane is reflected from it. At this point sulci of different depths are formed which cannot be always distinguished, until the thickened edge of the synovial membrane is raised. The ulcerated surface sometimes exhibits parallel vascular lines verging towards the centre, and having their origin from the synovial membrane. The synovial membrane at this part, if the vessels are well filled with fine injection, appears highly vascular, and fringed or villous like a mucous membrane. This increased vascularity is particularly noticeable at the edge of the membrane, and in these portions of the fringed margin that correspond to the ulcerated surface of the cartilage; the other parts of the synovial membrane have their vascularity but

slightly increased. This highly vascular fringe of membrane is newly-organized, and will be found in some parts to be a superadded, structure, for the purpose of producing ulceration of the contiguous cartilage. It may when recently formed be raised in some parts from the synovial membrane, but is found to adhere very slightly to that part of the cartilage where ulceration is going on; this adhesion is not perceived, unless the joint is opened with care. The nature of the process will be best understood by a reference to the patella." 224.

Mr. Key compares the process by which the cartilage is absorbed, to that by which a sequestrum is removed. The vascular processes of the synovial membrane form a groove in the edge of the former, by which the work of destruction is commenced. In the more acute cases, the cartilage is entirely taken from the margin of the bone, and granulations arising from the latter assist in extending the ulcerative action. In the more chronic form the vascular fringe of synovial membrane contracts adhesion to the surface of the cartilage in which ulceration is going on, and gives rise to the formation of a new membrane, which spreads gradually over the surface of the cartilage. The vascularity of this membrane varies with the stage and the degree of inflammation. It is considerable during the ulcerative process, but after the cartilage has been wholly absorbed, the membrane serves for another purpose, a medium of union or of anchylosis between the opposed surfaces of bone.

"A membrane is sometimes seen in joints under different circumstances, and affords a contrast to the above membrane, as well in structure as in its office. I allude to that adventitious membrane that is formed from the edge of the synovial membrane, in consequence of inflammation of a joint, induced by a contiguous disease of bone, as necrosis. In this case the membrane is formed for the purpose of circumscribing the cavity of the joint, when the cartilage is destroyed by the extension of the disease. It possesses but little vascularity, is smooth on its surface, not being furnished wtth the villous texture necessary to the ulcerative function. The opposed cartilage under these circumstances appears entire, ulceration taking place only on the surface next to the bone, and the membrane has not any connexion with the surface of the cartilage." 227.

Mr. Key considers the destruction of the semilunar cartilages of the knee-joint as rather a process of slow degeneration than of progressive ulceration. They are sometimes destroyed very early, but not unfrequently they are found entire in cases of acute inflammation, while those which cover the surfaces of the bones have undergone extensive ulceration,

Mr. Key alludes to the ordinary and chronic disease of the hip-joint usually described by the less exact pathologists under the denomination of the morbus coxarius, and regarded by Mr. Brodie as a primary affection of the cartilage. Mr. K. laments that the opportunities of making an examination of the part in the early stage of the disease, are few, but his own have induced him to believe, that ulceration of the cartilage is preceded by inflammation of the ligamentum teres. He lays before the Society a drawing, in illustration of a dissection which he made, and of which he has furnished a succinct account. The joint was taken from a young female who for six months prior to her death had laboured under the usual symptoms of chronic inflammation of the hip-joint. The symptoms had partly yielded to the treatment employed, when she was attacked with another disease of which she died. The ligamentum teres was found much thicker and more pulpy than usual, from

interstitial effusion, the vessels upon its investing synovial membrane were distinct and large, without being filled with injection. At the root of the ligament, where it is attached to the head of the femur, a spot of ulceration in the cartilage is seen, commencing, as it does in other joints, by an extension of the vessels in form of a membrane from the root of the vascular ligament. The same process was also taking place on the acetabulum, where the ligamentum teres is attached.

It demands no excessive scepticism, to inquire what proof Mr. Key can offer that the ligament was affected prior to the cartilage? Perhaps he may reply, that the extension of the vessels from the former to the latter is a ready and conclusive answer to the question. But in interstitial ulceration of the cornea, we find that, as the surface of that tunic is implicated, vessels from the conjunctiva become apparent. In the notes of a case of disease of the hip, contained in the work of Mr. Brodie, we observe the following account of a dissection.

"Having accidentally cut into the joint of the right hip, I found the cartilage covering the head of the femur absorbed for about one-third of its extent, and the surface of bone which was in consequence exposed, was covered by a thin layer of coagulable lymph. The cartilage lining the acetabulum, and all the soft parts belonging to the joint were in a perfectly natural state, and the bones were of the ordinary texture and hardness."—P. 123, 2d Edit.

In many of the dissections related by Mr. Brodie, we observe that ulceration is stated to exist at the attachment of the ligamentum teres to the acetabulum. In the more advanced cases the ligamentum teres is destroyed. We may suppose that the ligament, intended to restrain the motions of the joint, should be therefore disposed to suffer materially in diseased conditions of the articulation. This liability to morbid actions might probably be enhanced by the vascular supply that, entering the joint by the notch of the acetabulum, is considerable in the fossa to which the ligament is attached. However this may be, Mr. Key merits thanks for directing attention to the condition of the ligament in the early stages of hip-disease. Mr. Key extends a similar view to the origin of ulceration of the cartilage in a tarsal joint.

"There is a disease about the tarsus, the commencement and progress of which resembles, in many points, that of the hip-joint. It is usually considered as a disease of the ancle-joint itself; but it has its origin in the articulation of the under surface of the astragalus with the os calcis. The inflammation is slow in its progress, and when fairly established in the joint of a strumous subject, rarely fails to end in destruction of its cartilage, and of the inter-articular ligament connecting these bones together. It is usually attributed to a sprain, or twist of the foot sidewise, as if the ligaments had been injured; this joint has extensive lateral motion, and is restrained in its movements by this ligament. Very early in the disease, the least stretch of the ligament causes acute pain, and examination of the joint where the opportunity offers, also proves it to be inflamed and thickened and often extensively disorganized. The mischief is generally not confined to this joint, but extends to the upper surface of the astragalus. The ancle-joint however, in the cases which I have had an opportunity of examining, has suffered much less from ulceration of its cartilage, than the lower joint, and I believe that in many of the cases, which are regarded as disease of the ancle, the action will be found to have its origin in the

inter-articular ligaments connecting the os calcis and astragalus, and extending, as in the hip-joint, from it to the surface of the cartilage. The vascular membrane, which the synovial investment of the ligament assists in forming, may also be distinctly traced." 234.

However grateful the scientific pathologist may be for a new view of the nature of disease, his caution should prompt him to pause for conclusive proof before he hastily adopts it. We entertain no doubt that Mr. Key will continue to extend his inquiries and multiply his facts. His own appreciation of the value of truth will lead him in the meantime to pardon the misgivings of the critical mind.

When we cast back a glance on the preceding observations, we discover that the aim and the merit of Mr. Key consist in pointing out with the accuracy of the anatomist, the *manner* in which ulceration of the cartilage follows synovial inflammation. But the actual or comparative frequency of the occurrence is obviously not intended to be established. The surgical world, as we before remarked, was sufficiently aware of the fact, but we are not acquainted with descriptions of the process so minute, nor, probably, so accurate as Mr. Key's.

We pass to the second mode by which Nature effects ulceration of the cartilage without the agency of its own vessels.

The second mode in which Nature effects the ulceration of cartilage, without the agency of its own vessels, is seen after wounds into a joint. The synovial membrane inflames, becomes highly vascular, and its surface is in most parts covered with a new deposit of adhesive matter adhering to it firmly. The new surface is irregular, wanting the polish of the original membrane, and appears in many parts villous or furnished with vascular fringed projections. The cartilage in such circumstances is not only eroded at the edge where the synovial membrane is reflected from it, but grooves and indentations may be traced in various parts of it, having no connection with the edge of the synovial membrane, and not shewing any indications of a new membrane forming on its surface.

Mr. Key's ingenuity was taxed to account for such ulcerated grooves, which would seem to superficial observation to be formed by the action of the vessels of the cartilage itself. But his ingenuity was not unequal to the task. He discovered, and he affirms that others will perceive, that the grooves corresponded to organized portions of opposed synovial membrane —that these vascular processes happening to come in contact with the surface of the cartilage, absorbed it—and that this action also bears a close resemblance to the removal of pieces of sequestrum in necrosis.

As an instance of the facts and a confirmation of his theory, he has furnished a representation of a knee-joint, inserted at the end of the volume. The patient had received an injury of the knee, violent inflammation supervened, and amputation was required to preserve his life. The joint contained scarcely any purulent matter. Deep grooves of ulceration had been formed upon the inner condyle of the femur, without a trace of vascularity in their vicinity. The outer condyle exhibited similar appearances, in a less degree.

"On replacing the patella, it appeared that only those parts of the cartilage had suffered a loss of substance, that were opposed to the inflamed synovial membrane; the surface of the patella and the corresponding trochlea of the femur retaining their integrity and

natural appearance. The synovial membrane opposite to the grooves in the femur was covered with an irregular layer of membrane presenting several fringed projections, that fitted into the grooves of the absorbed cartilage, and at the points where ulceration had been most active, the flocculi of the membrane appeared to be most vascular." 239.

Had Mr. Key's description been less exact, the most careful inspector of the plate in question, would have failed to have been struck by the circumstance he mentions. Even with the aid of the description and the theory, it is difficult to distinguish the correspondence designed to be conveyed. The engraver's pencil has been less successful than the surgeon's pen.

Fact is so much to be preferred to theory, that the certainty of the one is an ample defence against the insidious doubts of the other. Were Mr. Key's observation less correct, it might probably be urged, that the cartilage being covered by synovial membrane, it is difficult to suppose that this would be absorbed by the mere opposition or contact of the same vascular tissue. We do not observe that an ulcer of the cornea is produced by unusual and persistent vascularity of the palpebral conjunctiva. Neither would the process, if allowed to be a real one, admit of a strictly accurate comparison with that observed in necrosis. We have formerly remarked that the sequestrum in that case is dead, and absorbed by the powers of a living tissue. But the cartilage covered by its synovial investment is not dead, and we know of no analogy that explains or would support its absorption.

Mr. Key appears imbued with the doctrines of John Hunter. We confess that we look on those doctrines with suspicion—that we think that excellent anatomist was too often an inconclusive and fallacious reasoner—that fancy and assertion passed with him for proof, and words for things—that obscurity and mysticism were regarded as profundity—and, in short, that John Hunter's real and almost superhuman merits must be sought in his museum. The following passage betrays the peculiar mode of thinking of John Hunter, and is characteristic of his school.

"The process of removing the cartilage appears at all times and under all circumstances of disease, an object that she endeavours to accomplish; while the cartilage remains entire, anchylosis, the natural cure in some forms of diseased joint, cannot be effected; and therefore we may often observe ulceration of cartilage going on very early in those diseases, that from some defect in the patient's constitution cannot be arrested without anchylosis. The means by which nature effects her purpose of removing the cartilage, which being unable to take an active share in the process of anchylosis is an impediment in the way of her process, will be found to vary according to the activity of the inflammation and the consequent rapidity of the process. In the most chronic form of strumous ulceration, the removal of the cartilage is effected by the gradual development and organization of the synovial membrane where it is reflected from the edge of the cartilage, as I have endeavoured to explain in a former part of this paper. Where the process is required to be more rapid, a false membrane is effused from the edge of the synovial membrane, that gradually diffuses itself over the whole surface of the cartilage, and by means of its increased vascularity, ulcerates the cartilage even to the bone, anastomosing often with the granulations of the exposed cancellated structure. In the most intense forms of inflammation, all her resources are called to her assistance: the ulcerative process is not confined to the margin of the cartilage, or to the action of a membrane having its origin

from the margin; but, the opposite synovial surface is furnished with the necessary organization, and takes an active share in the work of destruction." 241.

God and nature are often the apologists for theory. The ingenious man, of a temper perhaps to hear sermons in brooks, perceives in every ill an ineffectual attempt at good. His laudable desire to screen the intentions of the Deity, too frequently induces him to derogate from His omnipotence. The most bungling contrivances and abortive efforts are thus attributed to HIM. Those accustomed to the study of diseases of the joints are aware that ulceration of the cartilages is one of the most formidable, if not the most frequent. Yet this is to be deemed a *reparative* process. Some sophist has impiously boasted, that had he been concerned at the creation of the world he would have saved the Almighty many a blunder. Both sophist and sage might have spared Him this—of willing ulceration of the cartilage as a remedy for synovial inflammation. Those optimists who discover in every morbid process a remedial intention must be puzzled to account for the object of death.

The third form of ulceration of cartilage without the agency of its own vessels, is imperfectly and obscurely described by Mr. Key. In order that we may do that description justice we must again resort to the aid of quotation.

"The degeneration of the cartilage of a joint into a fibrous structure is, as far as my observations have enabled me to judge, a disease of a peculiar character, and differing in many respects from the ordinary affections of joints that end in the destruction of the cartilage. I have had but few opportunities of verifying by dissection, the existence of this disease. Mr. Brodie has described it, and appears to regard it as a not uncommon occurrence; in one instance he found it combined with disease of the intervertebral substance. Of three cases that have come under my notice, two occurred in subjects brought into the dissecting-room, and the history of which I was unacquainted with; the other case was that of a gentleman who was labouring under stone in the bladder, and suddenly experienced a severe attack of pain about the head of the fibula and the bursæ at the back part of the head of the tibia. The pain was accompanied with considerable fever, and slight swelling of the parts in which he complained of the pain. On the third day the pain shifted from the fibula to the knee joint, which swelled as if from an effusion of synovial fluid. The suffering now became excessive, and the fever assumed the typhoid character. At the end of ten days from the commencement of the attack, he died. The bladder presented less evidence of inflammatory action than might have been expected from the intensity of his sufferings. The knee joint was distended with a thin opaque synovial secretion of a somewhat puriform character; the surface of the synovial membrane presented here and there patches of more than ordinary vascularity. The cartilaginous surfaces of the bones were entire with the exception of a small spot on the end of the femur, which appeared ragged, and irregularly broken up into a fibrous mass." 242.

This passage, taken by itself, offers little, we might say that it offers *no* proof of either of the positions intended, we presume to be established by Mr. Key. It does not show that the fibrous change is independent of the action of the vessels of the cartilage, nor that ulceration is its consequence. The case of the gentleman affected with stone in the bladder is an instance of the fact, but not an illustration of the doctrine. The attack which proved fatal to that individual was one of the secondary articular inflammations,

which in cases of fever, of disease of any character, or after operations or injuries, are not unfrequently observed.* Does Mr. Key suppose that the trifling period of ten days was sufficient to complete the morbid alteration of the cartilage? And if he does not, what proof can he adduce that the alteration was effected in the vessels of other tissues?

When we turn again to the work of Mr. Brodie, we find a more satisfactory example of this peculiar alteration of the cartilage, and a more explicit remark upon its nature. We shall introduce both the one and the other.

"In examining a body brought into the dissecting-room in Windmill-street, I found the cartilage in a diseased state, in the joints of both hips, of one of the knees, and of both elbows. In some spots, the cartilages of these joints were altogether destroyed by ulceration, and carious surfaces of bone were exposed; in others, the cartilage was not completely absorbed, but it had the appearance of fibres, which were connected at one extremity to the bone, while the other extremity was loose towards the cavity of the joint, and having no lateral connexion with each other. The intervertebral cartilages connecting the bodies of some of the dorsal vertebræ were also in a diseased state. They retained the usual appearance of concentric layers towards the circumference, but in the centre, instead of the white semi-fluid substance, which is met with under ordinary circumstances, they were found to be of a brown colour, of a solid and somewhat brittle texture, composed of several portions, having a very slight adhesion to each other. The ligaments, the synovial membranes, and the bones, were all in a natural state, except that the latter were occasionally carious in consequence of the absorption of the cartilage; but the caries was unattended by the formation of matter."†

Here we perceive that the ligaments and synovial membranes were in a natural state, and we reasonably infer that the morbid alteration, and indeed the ulceration of the cartilage were not due to the action of their vessels. We presume, that the allusion to the occasional caries of the bones, which were exposed, will not be deemed sufficient to justify the imputation of the process upon them.

Mr. Brodie believes that the conversion of the cartilage into a soft fibrous structure is the frequent, though not the constant, forerunner of ulceration. But further than this the caution and the inductive philosophy of Mr. Brodie would seem to forbid his advance. The generalizations of Mr. Key are of a bolder cast, as the conclusion of the brief section on the *third* mode of ulceration of the cartilage may prove.

"The removal of the cartilage from the heads of bones in old people, proceeds so slowly that it is difficult to say, on the examination of a joint, whether the action has ceased, or is still in a state of progress. The form of disease to which I allude, is attended with a good deal of stiffening of the joint, accompanied by what are termed rheumatic pains. The place of the cartilage is often supplied by a bony deposit resembling ivory in texture

* We have seen a patient with aneurism of the aorta die in a week of such inflammation of the knee-joint. Persons affected with diffuse inflammation of the cellular membrane, with erysipelas, with phlebitis, in short, with any febrile malady, are occasionally cut off by insidious and rapid articular inflammations.

† Mr. Brodie on the Diseases of the Joints, second edition, p. 119-20.

as well as appearance. I have in one case seen the synovial membrane at its margin fringed and vascular, and apparently engaged in the ulcerative process. It was in a shoulder joint of a gentleman nearly sixty years of age, who had met with an accident to the shoulder, by which the actions of the joint had been impaired in consequence of subsequent chronic inflammation. I am unable to offer any very conclusive evidence as to the exact nature of the process in all such cases; but I believe it will be found to be analogous to the processes which I have previously described." 243.

Having candidly confessed that the inquiry is perplexing and the evidence defective, he *believes* that the process is analogous to what he has already described. Perhaps a more resolute scepticism would exclude the reception of many false theories in medicine.

The last form of ulceration of the cartilage is that which commences on the surface attached to the bones, and is probably, Mr. Key thinks decidedly, owing to the action of the vessels of the latter. As this kind of ulceration is described in the work of Mr. Brodie, and as our present ingenious author has not advanced much that is novel on the subject, we may safely decline to enter on its consideration.

Our readers may perceive that the aim of Mr. Key is to show that the ulceration of the cartilage is due to the vessels of other tissues. We have carefully endeavoured to do justice to his opinions, his reasonings, and his facts. If he, or if our readers think that we have failed, they may partly attribute our ill success to the imperfection of our apprehension and of our powers of expression, partly to the difficulty and the doubt which would seem to surround the writings of Mr. Key. His talents are obscured, and his ingenuity is frustrated, by the foggy medium through which they are regarded. More attention to method and to manner would only be an act of justice to himself.

If our readers should complain that our criticism is too subtle and our scepticism too great, we assure them that both are adopted upon principle. A reviewer has unhappily an opportunity of observing how fallacious are the facts, and how sophistical the reasonings, that are daily spread before the medical public. It *is* his duty, it *should be* his inclination, but in all probability it *is not* his interest, to receive what he hears and express what he reads with a spirit of doubt, which is ever more unfavourable to error than to truth. The leaning of the conductors of this Journal is not towards speculative doctrines. Their own conviction and the public award must become their defence, if defence should be required, against the wounded pride or the irritated sensibility of authors whose *writings* are subjected to criticism. The prevalent and disgraceful characteristic of modern medical periodical literature, has been the easy reception of opinions and the dark insinuations or the gross and ribald attacks upon men.

## II.

**The History of a Case in which Animals were found in Blood drawn from the Veins of a Boy, with Remarks. By *J. Stevenson Bushnan*, F.L.S. Surgeon to the Dumfries Dispensary, &c. Octavo, pp. 74. Highley, 1833.**

This history occupies but two or three pages of the volume before us, the rest being dedicated to a very laborious research into ancient and modern writings, in quest of similar phenomena.

On the 4th of June, 1833, Mr. Bushnan was called to a poor boy residing on the banks of the Nith, who had been bled from the arm, and from whose blood issued fifteen worms, to the great consternation of the mother, and even the neighbours. Mr. B. saw these worms, but, as the boy was labouring under the prevailing influenza, he drew six ounces of blood from the boy's arm, which he carefully covered with a basin, *and returned one hour afterwards*, when he discovered five animals swimming in the serum of the blood—all most vigorous and lively. On dividing the clot, it was curious to see the powerful efforts made by the animals to disengage themselves from it. From the crassamentum, he disengaged eight more, making thirteen obtained by himself—in all twenty-eight. Some of these he sent to his friend Mr. Rhind, of Edinburgh, an able helminthologist, who examined them, and reported on their nature. This report we shall here insert, as it is very concise.

"The animals I received from you lived with me two days in a little blood serum, when I had an opportunity of examining them most attentively. They are from about half an inch to six or eight lines in length; when dead the bodies relax and become about one inch long. They consist of an articulated body of eleven joints, of a head with rudiments of four organs, (antennæ and palpi), with an appendage immediately below the articulation of the head, which is ciliated and very similar to the respiratory tubes at the other extremity. The tail terminates in two tubular bodies or stigmata having ciliated margins, these are the external respiratory organs; besides these, there are two or three bands on each side which are mere fleshy appendages. Within the articulated body, extending on each side from the tail to the head, the respiratory organs are distinctly visible with the aid of a microscope. These consist of a continuous tubular structure, of a pale silvery colour, through which the air passes. The colour of the animals is bright red.

These animals exactly correspond in structure and colour and size to the larvæ of the Tipula oleracea, which, in summer, is so abundantly found in ditch and river water. The eggs of these flies are very minute, and at a certain season of the year, are deposited in great numbers in running water, by the Tipula fly—well known by its long legs and slender body.

The worms cannot be mistaken for any of the Entozoa of the human body, or of other animals; because they have distinctly formed aerating organs, which intestinal worms never have been discoverd to possess.

They are in many other points entirely different. Their red colour is a specific distinction, and, not likely to be accidental from the colour of the fluid in which they were found, and on which they appeared to feed. They also seemed to respire equally well in the blood serum as in water, for I could distinguish a constant succession of air globules in their respiratory tubes.

Believe me, very truly yours,
William Rhind."

Mr. B. adverts to the improbability of any deception in this case, from the animals having been in the cups previously to venesection, or introduced into the blood afterwards from design. We do not, ourselves, suspect any deception; but we certainly should have used more precaution on this occasion, and not allowed the blood to be out of our sight till properly examined. Mr. B. was anxious to procure some blood, by cupping, from the boy, but was unsuccessful. The boy resided on the banks of the NITH, the waters of which he was in the habit of drinking.

"He lingered long in a very hopeless condition, with every symptom of the greatest debility—a weak irritable pulse, seldom under one hundred and twenty in a minute, great prostration of strength, and severe wandering pains throughout the body, but especially in the back, œdematous swelling of the legs, a thickly-coated tongue, slightly diarrhœa, sleepless nights, and not unfrequent delirium. He got better, however, and early in August was able to leave his room: and by the end of the month was pronounced recovered." 12.

Our author was, at first, led to believe that the foregoing case was unique; but there is nothing new under the sun. On wading through the records of the healing art, he found a multitude of analagous instances, no small number of which he has collected from various sources, and condensed into this little volume. To those whose investigations take a turn this way, the labours of Mr. Bushnan will be valuable; but to the great mass of our readers, the facts which we have here stated will be all they desire to know. Indeed we cannot help thinking that Mr. B. expended more labour and time in these researches than the subject deserved; since many of the records of worms in the blood are of dubious authenticity, and if true, of doubtful utility. By these remarks, we do not wish to detract from the zeal and labours of Mr. Bushnan, but only hope that they will next be directed to subjects of more general interest.

## III.

A TREATISE ON THE DISEASES OF THE EYE. By *W. Lawrence*, F.R.S. &c. &c. Octavo, pp. 730. London, 1833.

MR. LAWRENCE is so favourably known to the profession that any work of his must receive its consideration and respect. But the present period is ill adapted for the publication of an extensive treatise on the diseases of the eye. The recent appearance of the elaborate production of Mr. Mackenzie has in all probability closed the market against the advantageous introduction of wares of a similar description. But this is not our affair, and we pass to the inspection of the work itself.

It is said by the author to be essentially based on the lectures on the anatomy, physiology, and diseases of the eye, delivered at the London Ophthalmic Infirmary. The subjects are considered in greater detail; the opinions and experience of others are quoted and examined; and cases are introduced for practical illustration, wherever that could be advantageously attempted.

It is not consistent with the plan of this Journal to review or to analyze elementary treatises. However able the author may be, however wide his experience may have been, the mass of what he writes must be familiar to the majority of his well-informed contemporaries. The injurious tongue of political enmity has accused the able author before us, of industry disproportioned to his original observation. His liberal acquaintance with the German language, and, perhaps, with modern continental literature, has furnished a specious pretext for scandal, a pretext that has been amply, if not ungenerously used. It might fairly have been anticipated, that the copious references to foreign authors would have proved an earnest of the candid temper of our own, and that criticism on this point might have laid aside its sting. Turning accidentally to the chapters on amaurosis, we find in about *one* page, a distinct and ingenuous mention of the practice of *nine* authors. Unable to impeach or undermine such candour, the critic has artfully suggested that the mass of opinions and of names betray the laborious compiler, and confer upon the monograph the comprehensive monotony of a dictionary or a cyclopædia. As we do not exactly agree with Voltaire, who, enumerating the sins of the Abbé Trublet, seems to find none so gross as compilation, we dismiss the subject without regret, subjoining only for those who may approve of sarcastic wit, the passage to which we have alluded.

> Au peu d'esprit que le bon homme avait
> L'esprit d'autrui par supplément servait,
> Il compilait, compilait, compilait;
> On le voyait sans cesse écrire, écrire
> Ce qu'il avait jadis entendu dire,
> Et nous lassait sans jamais se lasser.

When we turn again to the valuable and voluminous work before us, we are naturally embarrassed in selecting a portion for the gratification of our readers. As we cannot pretend to have perused its seven hundred closely printed pages, our imperfect acquaintance with its contents may lead us to do inadequate justice to their author.

We will endeavour to collect Mr. Lawrence's experience and opinions on some of the questions connected with diseases of the eye most important in themselves, or most mooted at the present period. There are probably none which have given rise to more keen discussion than the local employment of stimulants and astringents. It may be useful or it may be curious to ascertain the sentiments of Mr. Lawrence on their use.

He observes that when the eye is preternaturally red, when it is weak and irritable, when exertion of it or exposure to light causes watering and pain, although it may be easy while at rest, stimulants and astringents are resorted to with the view of causing the distended vessels to contract, and thus removing what remains of inflammatory excitement. He first adverts to the employment of the vinum opii, recommended and practised by the late Mr. Ware. He observes that were that gentleman's representations correct, we must look on it as a remedy of sovereign virtue. He used it in all cases of ophthalmia, chronic and acute, combined, however, in the latter with the treatment which is ordinarily termed antiphlogistic. Mr. Lawrence, for his own part, would never employ it in acute inflammation, for he thinks it would tend to its increase. And yet his aversion is not unmingled with

contempt, for he deems that "it cannot do much mischief." Whilst he thinks that it cannot do much harm in the acute stage, he believes that it will not do much good in the chronic, and between these two stools of insufficiency, he allows the remedy to drop to the ground.

Having alluded, in terms of similar faint praise, to the solutions of alum, of the sulphates of copper and zinc, of the nitrate of silver, of the oxymuriate of mercury, and to other preparations to which we need not more particularly advert, he utters the following equivocal condemnation of the whole.

"It may be observed generally, with respect to all these proposed remedies, that if active treatment be resorted to in the first instance, and followed up steadily, they are not wanted; and if insufficient means have been employed, so that a state of chronic inflammation is produced, this is a complaint which it is extremely difficult to remove, and which is not likely to yield to the vinum opii, or any remedies of that class." 123.

We cannot agree with Mr. Lawrence in the sentiments we have quoted—we cannot allow that active inflammation benefited by antiphlogistic treatment can never be reduced by that treatment, or without it, to a state requiring opposite remedies. How often must the practical surgeon have witnessed such a case as this. A weakly patient has conjunctival inflammation. He is cupped or leeched, and purged, and treated in a debilitating manner. The affection which at first had seemed relieved increases, the vascularity is less vivid but perhaps considerable, and disposition to chemosis is established. Such a patient would be killed before he could be cured by a continuance of the treatment. A drop of the vinum opii, or of some other stimulant or astringent affords immediate relief, and ensures a speedy recovery. Such a case occurred to us a few days back, and the supposition is merely the expression of a fact. We detect in this general aversion to the use as well as the abuse of stimulants the advocate of large bleedings and depletion in erysipelas.

*Catarrhal Inflammation.* Perhaps there are few unimportant complaints more annoying to the patient, or, at times, more productive of ennui to the practitioner, than simple catarrhal inflammation. It is generally treated by astringent or by stimulating applications, and their advocates present very flattering accounts of their success. Consistently with what might be expected, stimulants form no portion of Mr. Lawrence's methodus medendi.

He observes that antiphlogistic treatment is required, but that mild measures will in general be found to be sufficient. What those measures are will be seen from the following extract.

"Venesection is not in general necessary; but in a young subject of full habit with catarrhal inflammation in both eyes, and that severe, a full blood-letting would be proper; in ordinary cases, cupping and leeching will suffice. The bowels should be freely evacuated by an active aperient, or, if the tongue be foul an emetic may advantageously follow the loss of blood. Saline sudorific medicines may then be given, such as the liquor ammoniæ acetatis, with nitre, or tartrite of antimony, and occasional purgatives. The patient should be kept warm, taking plentifully of warm diluent drinks, and no animal food nor fermented liquor. If blood should have been taken by venesection or cupping in the morning, and the alimentary canal should have been subsequently cleared by an emetic and a purgative, the warm bath, or warm pediluvium may be used at night, and a full dose of Dover's

powder (from ten to twenty grains) given at bedtime. The patient will be nearly recovered the next day, or it may be necessary to repeat cupping or leeches, to persevere in low diet, diaphoretics, and purgatives for a few days, and perhaps to apply a blister to the nape. In cases where the inflammatory affection is not considerable, and seems entirely referable to a disordered state of the alimentary canal, it may not be necessary to take blood from the part. An emetic, and active aperient containing calomel, or the latter alone, may be administered, and followed by mild purgatives, the diet being light.

The best local application in these cases is warm water, or poppy fomentation; these are better than cold lotions in catarrhal inflammation." 156.

Cupping, leeching, blistering, purgatives, emetics, salines, and low living, are prominent items in a list of mild measures. Mr. Lawrence, holding a scarificator in one hand and a basin for a vomit in the other, promises with confidence the same success as those who confide in their nitrate of silver solutions. It is pleasant to observe in the practice of medicine, such uniform good fortune with such various treatment.

## Purulent Ophthalmia of Newly-born Children.

The following remarks upon the cause of this affection appear to be characterized by judgment and experience.

"In a great proportion of cases there is vaginal discharge from the mother, leucorrhæa, and sometimes gonorrhœa. The eyes of the infant are exposed to the contact of these morbid secretions in passing through the vagina; hence has arisen the natural inference that they are affected from the actual contact of this matter, and the tolerably regular appearance of the disease on the third day corroborates this notion of contagious origin from direct application of the morbid matter. I was acquainted with a case, in which a married gentleman contracted gonorrhœa, and communicated the disease to his wife then pregnant. The infant which I did not see till four months after birth, had been affected with purulent opthalmia; one of its eyes was staphylomatous, and the cornea of the other was considerably nebulous. The affection had been totally neglected, even the attendant accoucheur having stated that it was merely a cold in the eye, which would do well of itself. I have seen some cases of very rapidly destructive purulent opthalmia in infants, when the mother has had gonorrhœa at the time of parturition. Sloughing of the cornea, with extensive ulceration spreading to the interior, and consequent evacuation of the globe, had occurred in these instances before I have seen them. An example of purulent opthalmia in an infant, where the communication of gonorrhœa to the mother, and the infection of the child's eyes by the vaginal discharge were unequivocal, is related towards the end of this chapter. Although the inflammation was severe, it did not produce the serious effects just alluded to. But, on the other hand, purulent opthalmia is often seen in the children of healthy mothers, at least, of such as appear perfectly healthy, and deny, when questioned, the existence of vaginal discharge in any shape. As we cannot carry the investigation further, the source of the complaint must remain at least doubtful in such cases, and consequently the contagious origin of the disorder is still open to dispute." 169.

It would seem more common and more certain for a mother affected with gonorrhœa to produce a child who shall have the opthalmia neonatorum, than for a child affected with this complaint to have sprung from a mother labouring under gonorrhœa. In other words gonorrhœa, when it exists, seems always, or usually a cause of the ophthalmia, but there are also other

causes independent of vaginal discharge. We have seen several females, patients of the Lock Hospital, delivered. Their infants had in every instance the purulent opthalmia. But we have also seen the opthalmia neonatorum occur where we could not determine the existence of gonorrhœa, or decided vaginal discharge in the mother.

There is no necessity for particularizing Mr. Lawrence's treatment of this complaint. It differs little from that usually adopted. When the inflammation is considerable he recommends the application of one or two leeches to the red and swollen superior palpebra. Mild aperients—the prevention of agglutination of the lids by means of a little lard—tepid bathing and cleanliness—and the use of astringents on the subsidence of the inflammation, constitute his rational and not peculiar mode of practice.

His heroic treatment of gonorrhœal opthalmia occupied formerly many pages of this Journal. We will not revert to it now. But strumous inflammation may briefly detain us. Mr. Lawrence remarks, and with obvious justice, that the general treatment of this complaint is a matter of the utmost moment. His directions on the management of the organs of digestion—on purgatives, on tonics, on diet, and on clothing, seem to us to be characterized by great good sense. Though free from exception, they not are possessed of such novelty or originality as to lead us to transcribe them. We may simply remark, that while Mr. Lawrence is an ardent admirer of warm clothing and defence against all vicissitudes of temperature, he has intentionally or unintentionally omitted to mention the application of cold to the surface by sponging, the shower, or the common bath. Yet, much as may be attributed to purgatives, to tonics, or to clothing, there is probably no single medicinal agent so powerful in improving or maintaining the health of young persons or of old, as this which we have mentioned.

The following is his system of local management.

"In the early period of the complaint, especially in cases which approach to common inflammation, and are attended with considerable redness and pain, a white tongue, and hot skin; or at any time when such symptoms may supervene, abstraction of blood by leeches, and their repeated application, may be necessary. In a severe attack, about or soon after puberty, cupping on the temple may be advisable. It may be expedient to administer an active aperient before leeching. Afterwards tartar emetic may be employed, either alone, or in combination with calomel or sulphate of magnesia. This remedy, given so as to produce vomiting or nausea, may sometimes supersede the abstraction of blood. The intolerance of light is not an indication for the use or repetition of leeches. This symptom has sometimes been regarded as a sign of inflammation, and hence depletion has been carried to unnecessary and injurious lengths. It increases the irritability of the organ, and aggravates the local symptoms, which are lessened by tonics and good diet.

Scarification has been recommended; but I have not practised it in these cases. In the commencement of the affection, when the neighbourhood of the organ and the head generally are hot, cold may be applied to the eye with advantage. But more commonly warm water or poppy fomentation is more comfortable to the patient's feelings. When the intolerance of light and spasm of the lids are considerable, they may be relieved by applying a bit of soft flannel, wrung out of a strong decoction of poppies and chamomile-flowers, as warm as it can be borne.

The local employment of opium is resorted to, when the last-mentioned symytoms are severe. The liquor opii sedativus of Mr. Battley is an eligible form. A dram of it may

be added to an ounce of water, to be used tepid; a few drops may be allowed to pass between the lids. The steam of a mixture of tinct. opii, ʒss. with mist. camphoræ, ʒvijss. may be applied to the organ.

Great benefit is derived from local stimuli after the inflammatory symptoms have been removed, and the alimentary canal has been brought into a healty state. The solution of lunar caustic, from two to six grains to the ounce, dropped between the lids, is the best, and has great influence in diminishing the irritability of the eye, and promoting the cicatrization of ulcers. A stronger solution might be employed, if it could be applied to the ulcerated surface by a camelhair brush.

The red precipitate ointment to the lids is a useful application.

After evacuations, counter-irritation may be usefully employed, either by blister behind the ear or to the nape; or by the tartar emetic ointment. It is necessary to proceed cautiously with blisters in young subjects; they should not be left on longer than six or eight hours; nor is it safe to irritate the surface with the savine ointment. I have seen fatal mortification ensue from the neglect of these precautions. I prefer the ointment, as a more manageable and effectual means of accomplishing the object.

When change of structure is going on in the cornea, the part becoming red and opaque, mercury must be freely admistered; and its beneficial influence in arresting disorganization will be most powerfully manifested, if it should affect the mouth. Calomel, or the hydrarg. c̄ creta may be used, either alone, or in combination with James's powder, or with the pulvis ipecacuanhæ comp."

Mr. Lawrence has not said all that without impropriety he might, on the treatment of strumous ophthalmia. We will not indulge in further comment than this—that we doubt the correctness of his remark on that obstinate and distressing symptom, intolerance of light. He would seem to imply, for he does not very clearly express his opinion, that the symptom in question is lessoned by tonics and good diet. We have at present a young child under our care, in whom this has not been the case. The intolerance was severe to an extreme degree, and many plans of treatment were tried without success by others and ourselves. At last we ordered calomel and scammony every night, and senna, with the sulphate of magnesia, every morning. In a few days the intolerance of light had disappeared, or at least had almost subsided.

We may allude, in this rambling and imperfect notice, to Mr. Lawrence's brief, but not inexpressive observations, on the diagnosis and the treatment of glaucoma.

"The discolouration of the pupil arising from glaucoma, and that from cataract, may be distinguished by the tint of colour. In glaucoma it is green or yellowish green, and if we look at the eye laterally, we see no discolouration, whilst in cataract the pupil is grey, or greyish white, and it has the same appearance in whatever direction it is viewed. The loss of vision in glaucoma is not in direct proportion to the change of colour in the pupil; with an inconsiderable change, vision may be entirely destroyed or seriously impaired; but in cataract there is a direct proportion between the degree of opacity and the injury to sight. In cataract, vision is best in a moderate or weak light; but in glaucoma it is most perfect in a strong light, because in glaucoma, as the retina is less sensible, more light is required to make an impression on it.

*Prognosis.*—The prognosis in glaucoma is unfavourable; we have no means of changing that condition of the internal parts on which the loss of transparency depends; we cannot bring back again the natural appearance of the pupil; we cannot restore the vision which has been lost; and all we can expect to do, is to preserve the little sight which remains.

*Treatment.*—BEER says that no treatment will be of any effect in preventing complete amaurosis; but I cannot agree with him on that point. There is congestion in the head, the removal of which is attended with considerable benefit. The treatment must be decidedly antiphlogistic: we must take blood by cupping; give active purgatives, and administer mercury; the patient must be put upon a regulated plan of diet, and avoid using the eye. If this treatment be followed up, we shall prevent the disease from advancing.

In the first place, when there is active congestion with pain, the patient is relieved from his uneasy sensations. The continued prosecution of the plan will not only prevent the disease from advancing, but even improve sight when it is begun at an early period of the affection. After taking blood by cupping, which may be repeated according to circumstances, it is sometimes necessary to persevere for weeks or months in the use of mercury, not carrying it to the extent of salivation, and at the same time carefully regulating the diet. In this way I have seen the swoln and pimpled countenance of a drinker surprisingly altered for the better, with corresponding improvement in the complaint; and in some instances, where glaucomatous discolouration of the pupil has been attended with slow inflammation of the iris, evidenced by adhesion of its margin, and with protrusion of it against the cornea, the disease has been kept in check, and good vision has been preserved for years." 394.

We cannot close the volume, without expressing our high opinion of its general character and merits. It is one which should be placed, and which doubtless will be found, in the library of all who collect and preserve the *best* specimens of modern medical literature. Did we feel inclined to hint a fault, we should say it is too much pervaded by that antiphlogistic energy which characterizes the author of the celebrated paper upon erysipelas.

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## IV.

### A DICTIONARY OF PRACTICAL MEDICINE, &c. By *James Copland*, M.D. Parts 1 and 2, 1832 and 1833. Longman & Co.

THIS meritorious work has reached as far as nearly to the end of D, and has excited a strong sensation throughout the profession, in consequence of the research, industry, and talent displayed by its editor. He has come single-handed to a Herculean labour, where a whole phalanx were already in the field as candidates for the same prize. We long ago predicted that the labours of an individual (if a well-qualified individual could be found), in such an enterprize, would have some peculiar advantages over those of an association of authors—on account of the unity and consistency which these labours would present—and which could not be expected in the rival Cyclopædia, comprising a series of monographs by individuals. Fortunately for the honour and utility of the profession, each work has its peculiar merits and advantages—and the possession of the one ought not, for a moment to prevent the purchase of the other. The one is a dictionary—the other a cyclopædia. Their plans are different, and their aggregate merits may be pretty equal; but to Dr. Copland, who in his own person matches each individual of the competing association in learning and research, great honour is due, because prodigious energy as well as merit is displayed.

We have found it impossible to give a review of either of these national works, without loading our pages with elementary matter, however valuable in itself, and thus defeating the purpose of a medical journal. Yet we cannot pass over such productions in silence, or afford them merely the niggard tribute of a bibliographical notice. However rigid our adherence to the method of analysis may be, it must bend before the force of such circumstances as these. This is at once our apology and defence of the occasional articles not of an analytical or critical character that appear in the numbers of this Journal. There is seldom a periodical lustrum in which we do not find it necessary to commemorate the publication of some valuable work, too elementary for analysis, too able or too original for neglect. Those of Mr. Lawrence and of Dr. Copland are present and pregnant examples.

The part of the Dictionary of Medicine before us comprises those subjects in medical science which intervene in alphabetical order between "climacteric decay," and "encysted dropsy." Some of the more prominent may be rapidly enumerated:—climate, with its effects on health and on disease—cold, as a remedial or a morbid agent—colic—convulsions—cretinism—croup—debility—delirium—diabetes—the functions and the lesions of the digestive canal—disease, considered in a comprehensive sense—and the several varieties of dropsy.

When we pass from the catalogue of names, to regard more critically and more attentively the execution of the articles, we are struck by the learning displayed by the author. It is worthy of former days, and the patronage of such an undertaking is calculated to diminish the force of the general imputation on the superficial levity of modern writers and readers.

The rich profusion of learning and of literature, and the short space allotted for the present notice, embarrass our choice of an illustrative quotation. Perhaps the following insignificant extract may display the author's manner of handling his subject, as well as more lengthened and more laboured passages, on diseases of a more commanding interest. We select the account of the terminations of diarrhœa, and the morbid appearances seen upon dissection.

"*B.* Diarrhœa may *terminate*—(*a*) in *dysentery*, from an increased affection of the large bowels, frequently connected with inflammatory action or ulceration of their mucous surface and follicles, and spasmodic action of the lower part of the colon: (*b*) or it may run into *enteritis*, or even *peritonitis*, particularly when it commences in the serous form, owing to the extension of inflammation from the internal to the more external coats of the intestines; or to the perforation of them by ulcers; and it may end in abdominal dropsy: (*c*) or it may give rise to *convulsions*, to intus-susceptions, particularly in children: and (*d*) it may assume the *chronic* form, varying in severity and duration, and occasioning mesenteric disease, emaciation, and exhaustion; and it may be prolonged even for years, with irregular remissions and intermissions.

*C.* The *appearances* on dissection can be ascertained only in severe or chronic cases, or in those who have died of its complicated states; or of some other disease on which diarrhœa had supervened, or with which it was associated. In some recent or slight cases, the *mucous coat of the intestines* has been found quite pale and bloodless; and the follicles, only, more developed than usual. In others, it has been somewhat softened, or merely injected; occasionally it has been congested and discoloured, the injection or congestion generally existing in patches or streaks, between which it has been quite pale. In more chronic and severe cases, it has likewise been pale, anœmic, and softened: in some, inflamed, congested,

and of every shade, from a rose tint to a brownish or purplish colour—commonly in streaks or patches. In some instances, either without, or in addition to, these and other appearances about to be noticed, the mucous and *submucous* tissues have been œdematous, thickened, and very much softened. Inspissated mucus, or even coagulable lymph, and more frequently a thin, brownish or greyish, or puriform mucus, have been found covering the diseased surface. In some cases of children, the intestines have become soft, white, almost diaphanous, and easily torn; and have contained a purulent, custard-like matter. Their calibre, in a few instances, has been greater than usual; but much more frequently diminished, or even much and irregularly contracted, particularly in the part chiefly affected. In some instances, small pustules containing purulent matter have been observed, apparently unconnected with the follicles; and, upon breaking, have left merely a slight, superficial, and reddish ulceration, or excoriated-like surface. (BRIGHT and myself.) Both the small and large intestines have occasionally presented one or more introsusceptions—sometimes a number, especially in infants and children; and, in fatal cases, soon after weaning, softening, with or without inflammatory appearances, has often also existed in the *stomach* and liver. The intestines have been, in some instances, of a darker hue than natural, externally as well as internally; either in large portions, or throughout, and occasionally in thickly disseminated dots or points. The *mucous glands*, particularly in severe or chronic cases, and those belonging to the mucous and lienteric varieties, have been very generally found either prominent, enlarged, inflamed, or the seat of ulceration, or of a dark or blackish colour, by BRUNNER, STARK, LIEUTAUD, BANG, ABERCROMBIE, BRIGHT, ANDRAL, ANNESLEY, and myself. Fungoid ulcers in the situation of the follicles, often with prominent and inflamed bases, have likewise been observed by these writers. BRUNNER (*De Gland. Duodeni, &c.*) noticed their prominent and enlarged state in the duodenum; and STARK (*Klin. Bemerk, &c.* p. 7.) principally in the large bowels. I have often observed them enlarged, or otherwise diseased, in the former of these situations, in cases of the lientery and atrophy of children; but those of the cæcum, of the termination of the ilium, and of the colon, are more frequently affected in this class of patients. The *mesenteric glands* are often inflamed, or enlarged, or indurated, particularly in young subjects, and in chronic and lienteric cases. The *gall-bladder* sometimes contains greenish bile; and the *liver* is occasionally more vascular than natural. The parts most commonly or most severely diseased are the ilium, especially its lowest third, and the cæcum. The absence of any appreciable lesion in some cases, and the slight nature of those observed in others, militate against the doctrine of BROUSSAIS as to the universal dependence of diarrhœa on inflammation of the intestinal mucous surface. He, however, contends that the blood had retired, in such cases, from the inflamed capillaries into the veins, at the time of, or after, death; thereby leaving no traces of inflammation observable on dissection. This change may occur in vessels that are simply excited, or after erethism merely of the mucous coat (states most frequently attendant upon slight diarrhœa;) but not when inflammation has actually existed. (See DIGESTIVE CANAL—*Pathology of.*)"

We have little to add on parting with our author. The success of this Dictionary is not more creditable to him than to the public, and all men of candour and of sense would esteem it a disgrace to the profession and the age, if industry and talent, such as are displayed by Dr. Copland, were passed without attention and without reward. The high estimation of his contemporaries must be gratifying to the feelings of that gentleman, whom we mention with pleasure and with pride as our friend; the significant approbation of the public will form a more solid, if not a more flattering recompense, for his anxious and unremitting toil.

## V.

A treatise on those Disorders of the Brain and Nervous System which are usually considered and called Mental. By *David Uwins*, M.D. Octavo, pp. 233. Renshaw and Rush. Sept. 1833.

To publish another work on insanity, in the present depressed state of the *book-trade*, is little less than an indication—or, at all events, a premonitory symptom of the disease itself. Our worthy author indeed acknowledges, near the end of the work, that we are all more or less insane—"it follows that the difference between sanity and acknowledged insanity, is rather a difference *in degree* than in kind"—a sentiment in which we cannot fully agree with Dr. Uwins!*

Dr. Uwins opens his case in the following manner:

"Circumstanced as is the author of the present treatise in reference to cases of mental aberration, having constantly under his care every grade and every shape of deranged intellect; now being called to visit in the Asylum to which he is professionally attached, the horrible convulsions constituting an epileptic paroxysm, now the circumstances and consequences of an apoplectic seizure; on this day being required to investigate a malady, the features of which may scarcely be visible without painful scrutiny; on another day being placed almost in personal danger by the sufficiently palpable and violent ebullitions of maniacal fury; at one moment having to trace the oftentimes faint line of demarcation between inflammation of the brain, and states simulating it, at the next to aim at ascertaining whether visceral or vascular conditions are the sources, or only the incidents of derangement; being, moreover in many cases, called on (and sometimes for judicial purposes) to decide the very difficult, but very momentous question, whether acts have been the result of controulable impulse or delusive excitation; it may not be charged upon an individual thus engaged, that he is incompetent to write on insanity, on the ground that what he writes must rather be the closet coinage of his own brain, than the fruits of actual and practical observation." 2.

No one will question Dr. U.'s competency to write on insanity or on any other professional subject; but there are some who will not praise the style or the taste of the foregoing passage. This is of little consequence, but the inattention to strict arrangement, and the desultory manner in which the subjects are treated, render it totally impossible for us to give an analysis of the work. We must therefore throw out our hook at random, and catch what we can.

Dr. U. observes that "erroneous *conception*" constitutes the main ingre-

* While writing these lines we see that Dr. Uwins stated this opinion of universal insanity at the Old Bailey, in the case of Elizabeth Wrattan. We apprehend that such a doctrine should not be publicly stated, first, because it is not correct, and secondly, because it is highly impolitic, and would defeat the ends of justice. If all are insane, as the judge remarked, none are sane—and none, at that rate, were accountable agents. If the Doctor had said that all were, more or less, *unwise*, he would have been nearer the mark. The jury gave it against the Doctor in this trial.

dient of positive madness—the misconception being always more or less engendered by false *perception*.

"I have had an interview with a young gentleman of first rate accomplishments, and full of intellectual vigour and propriety, who, immediately you mention the word elephant, whether by design or accident, whether in combination or by itself, is suddenly seized with a species of horrific spasm; and while the impression lasts, is, to all intents and purposes, a madman." 6.

We know a gentleman whose life is rendered wretched by the number 3. Whenever that unlucky number comes across him in any conspicuous character, he is overcome with a fit of horrors, and continues so for several days, though his reason tells him it is an illusion. His feelings, however, will not permit him to shake off the illusion, till by some means or other he contrives to break the spell, when he is as well as ever. Thus he fancied a watch which he saw hanging up in a bawnbroker's window, and purchased it. Some time afterwards, while winding it up, he saw to his astonishment that the number of it was 333; and to add to the misery, the number of the pawnbroker's house was 33;—while, to crown the infernal catalogues of *threes*, he remembered that he paid *three* guineas for the watch!! Ridiculous as this chain of coincidences may appear, it cost the poor gentleman more than six months of mental suffering, during which he pined away to a skeleton, and was, at length obliged to travel three or four hundred miles to London, in order to find out the pawnbroker, to whom he returned the watch for two guineas. From that instant, the spell was broken, and he was himself again!

After a short review of the phrenological system, as elucidatory of insanity, the Doctor leaves the point undecided—balancing so adroitly between the phrenologists and anti-phrenologists, that it is difficult to say what is his own opinion, if, in reality, he has one. But he winds up the first chapter with the following conclusion, namely "that mere nervousness, as it is vulgarly named, and insanity, as it is almost as vaguely assumed, are absolutely identical." We suspect that some of the Doctor's nervous patients would not be over well pleased if he were to broach this doctrine in their presence. We beg leave to suggest to the worthy Doctor the propriety of keeping such sentiments to himself; for surely a great proportion of his patients will be shy of having his carriage at their doors, seeing that, by his own showing, *all* his patients are more or less insane. Let the Doctor look to this in time!

"The second chapter opens with "definition"—"essentials." Considering nervousness as a degree of insanity, Dr. U. justly observes that those brief summings up, entitled definitions, are no easy matters. Notwithstanding this difficulty, our author jumps at a very laconic definition, contained in a single word—insanity is neither more nor less than "MISCONCEPTION." The meaning of this word, in Johnson's Dictionary, is "false opinion." So every person who forms a false opinion is insane! This is certainly in keeping with Dr. Uwins' opinion, whether that opinion be true or false.—The illustration which Johnson gives of misconception, is not very inapplicable to the doctrines of our worthy author. "It cannot be that our knowledge should be other than a heap of *misconception* and error."—*Glanville*. Dr. Uwins, however, treats us to the various definitions of insanity given by Darwin, Brown, Beddoes, Watts, Mead, Haslam, Shakespeare, Arnold,

Conolly, and many others, though we know not for what purpose, since "misconception" is the most easily remembered of any. Indeed as we are *all* insane, we think that OMNIBUS is just as good a definition for insanity, as any given—by Dr. Uwins himself.

To the kinds and shapes of insanity, as mania, melancholia, monomania, hypochondriasis, dementia, &c., our author attaches little importance.

"*Melancholia*—why we are all melancholic at times from misconception. *Mania*, who is there that has not been at one period or another irritated beyond measure by misapprehension? *Monomania*, or misconception on one point. What light do we throw upon this feeling by giving it a hard name! Of *hypocondriasis* we have plenty of instances in the present day, much short of mad-house dreamers, since the stomach has been considered every thing, and every thing the stomach. Even *Idiotcy* may be monoidiotism, as seems to have been the case in the Baxter instance; and we are all more or less idiotic, if the term implies congenital want of power." 32.

The third chapter is devoted to the progress of symptoms—and to general characteristics. As may be supposed, Dr. Uwins considers insanity as depending on bodily disorder—and there we agree with him. He does not confine the corporeal cause to any particulur part of the body, but places it in the head, chest, liver, stomach, and any or every spot of the corporeal fabric. In this chapter there are some loose and scattered hints and observations which are worth attending to. Dr. U. remarks that every individual case may be looked upon as a fresh study—bringing with it peculiar incidents and special features.—Hence a history of lunacy can only be regarded as a collection of the more general and prominent circumstances by which it is characterized.

It has been thought that the walk of insane persons is peculiar. If the space be confined, the maniac will show an impetuosity in his movements. Dr. Uwins, and others, notice the offensive breath peculiar to deranged individuals. It is not always from derangement of the stomach. Passions of the mind will immediately produce these changes in the pulmonary exhalations, without any apparent disorder of the digestive organs.

"The talkative lunatic is remarkable for the repetition of a word that may have been accidentally used by himself, or expressed by another; and such repetition is, for the most part, still more persisted in, in despite of endeavours of bystanders to supersede it, should it fall into a sort of rhythm with other parts of a sentence. On the other hand, what has been called by Shakespeare re-wording, can seldom be accomplished by an individual whose ideas are jumbled together insanely. This difficulty in distinctly repeating a proposition, ought to be recollected by all who are professionally called on to decide mental conditions, as it is extremely significant of derangement. It was alluded to particularly, in a paper read before the College of Physicians, some time since, by the President." 43.

There are so many people, however, whose ideas are "jumbled together," and who find difficulty in repeating a proposition, or any thing else correctly, that we should not depend much upon this criterion.

Maniacs are so taken up with the intensity of their feelings as to be often insensible to the lapse of time. The affecting instance recorded by Mr. Hill, is a remarkable illustration.

"A gentleman on the point of marriage left his intended bride for a short time; he

usually travelled in the stage coach to the place of her abode; the last journey he took from her was the last of his life. Anxiously expecting his return, she went to meet the vehicle. An old friend announced to her the death of her lover. She uttered an involuntary scream, and piteous exclamation, 'he is dead!' From this fatal moment, *for fifty years*, has this unfortuuate female daily, in all seasons, traversed the distance of a few miles, to the spot where she expected her future husband to alight from the coach, uttering in a plaintive tone, 'he is not come yet—I will return to-morrow.'" 44.

Several other traits of insanity are delineated by our author, all showing that he is well conversant with this species of human calamity.

In the fourth chapter, Dr. Uwins traces the sources of insanity—insisting, with much justice, that—"the sources and resources of refinement are, in a great measure, the sources of insanity." We find our author a stanch advocate of the doctrines of Cobbett, that the diffusion of knowledge is a great evil—and a great cause of insanity.

"Science may boast of her steam rapidity. Railway contrivances may come almost to annihilate the notion of time and distance. The arts of luxuary may pour out their enchantments, and philosophy and mercantile industry join to convey them to the remotest villages; but even allowing that there is a benefit to society in all this, how certain and how great is its evil amongst the peasantry. Were I to say that, even in my time, the countryman has been a much healthier and happier, because a more ignorant man, than he is at present, I might be called an enemy to improvement—a conservative of feudal barbarity. I feel, however, that the charge would be ill-founded; and, besides, I am only required to state facts physiologically, and in reference to our present inquiry; and most certain it is, that they infer too largely respecting the benefits of science—sometimes falsely so called—who calculate upon its unalloyed blessings. Dr. Willis used to say that he owed a great porportion of his patients to the importation of China tea into Britain. In this assertion he might be correct in one sense, but not in another. It is not the mere abstract poison of tea which deteriorates the nervous system.—though there is something even in this,—*but it is the accompaniments which tea brings with it that do the greatest part of the mischief.* Pianos, parasols, Edinburgh Reviews, and Paris-going desires, are now found among a class of persons who formerly thought these things belonged to a different race; these are the true sources of nervousness and mental ailments, and not merely this or that specific article of food or drink." 51.

In the foregoing passage the more profound pathologist will see that Dr. Uwins mistakes concomitants for causes. The pianos, the parasols, and the Edinburgh Reviews, have little to do, as *causes* of insanity. They are only amusements and implements which high civilization requires—or determines to employ, and no more. In the following passage this mistake is still more conspicuous.

"It is a curious fact, and it being mentioned here may serve to strengthen my assumption, that the multiplication of rules about diet and regimen brings with it an increase of the very evil that is so anxiously sought to be avoided. When did dyspepsia prevail so hugely as it does at this moment, when we have treatise upon treatise, and precept upon precept on stomach complaints. Who ever heard of such a numerous host of heart affections as now exist, now that the very vulgar talk largely and learnedly about valves and ventricles, and functions and organs? Do not teeth disorders increase in number with the multiplication of dentists, even of science and principle? and are not female complaints manifestly more numerous and complicated, now that there is an obstetrician in every street?" 52.

In the first place, it is to be remembered that Dr. Uwins has written a very learned treatise on diet and indigestion,—consequently he has his share of the dyspeptic sins to answer for, in company with Abernethy, Phillip, Paris, Abercrombie, and many others. But does Dr. Uwins seriously believe that stomach doctors have caused the increase of stomach disorders—that Corvisart, Laennec, Forbes, Hope, &c. have spread diseases of the heart—that dentists have multiplied the tooth-ach—and that Sir Charles Clarke, Dr. Merriman, Dr. Granville, Dr. Davies, Drs. Ley and Lee, Dr. Locock, Professor Davis, &c. &c. have increased leucorrhœa, amenorrhœa, abortions, floodings, cancer uteri, and the various uterine maladies to which our wives, daughters, and elderly aunts are subjected? This doctrine is precisely on a par with the etiology of the Goodwin Sands—which sands having appeared soon after the erection of Tenterden Steeple—were, on the sound argument of "post hoc ergo propter hoc, very naturally attributed to that useless appendage to Tenterden Church.

Dr. Uwins touches on the subject of religion, as an occasional cause of insanity, with considerable caution. The arguments pro and con might be compressed into a nut-shell. It is not religion, but fanaticism and superstition that cause insanity. When we contemplate the gloomy, absurd, and frightful doctrines that are held forth by a hundred different sects, each "dealing damnation" on the tenets of the other, and consider the weakness of the minds on which these conflicting creeds are impressed, the wonder is that—Dr. Uwins is not right in his "idolum specus"—and that all men are not mad, according to the Doctor's theory!

Dram-drinking and opium-eating are touched upon by Dr. Uwins with considerable effort at impressive writing—but not always with the desired success. The following is a specimen.

"It has been generally assumed, that insanity is more common in England than elsewhere; but a census, taken from the time that the continent has been shaken by political and religious commotions, while we have been in comparative tranquillity, tells a different tale. The French Revolution, while it overthrew one monarch, created many. 'Nay, the madhouses of France at this time were peopled with gods as well as kings. Three Louis XVI's were seen together disputing one another's pretensions. There were, besides, several King's of Corsica and other countries; there were sovereigns of the world, a Jesus Christ, a Mahomet, so many deities as to render it necessary to distinguish them by the place they came from, as the god of Lyons, the god of the Gironde.'" 58.

To the flowing eloquence of the late Dr. Reid, our author is not a little indebted; and it would have been as well to have quoted his name a little more frequently, when making use of his sentiments.

Intense study is ranged among causes of insanity—and the following quotation is the whole of what is said on this point of etiology.

"Intense study has been ranged among the sources of insanity—and with propriety. Without being desirous of checking the youthful aspirant after college honours, I cannot but admit, that when 'hard reading' is carried beyond the physical powers, it is, like the *Vis consili expers* of the poet, calculated to destroy its own design. What would some of our pale-faced voluptuaries in study say to the advice of a lady, who, when writing to her son at the university, tells him, "he must eat and drink like a ploughman,

or he will do no good with his books?' Certain it is, that if we do not walk and eat, and sleep well, while at College, we gain our honours at a dear rate, and shall hold them upon an insecure tenure." 60.

As the majority of our youths eat, drink, and sleep well at College, we have not much to fear from this item in the long list of causation. Masturbation is alluded to in delicate terms—and its consequence, real or supposed impotency. In the influence of the moon, as productive or aggravative of lunacy, Dr. Uwins has not much faith; though he admits that atmospheric changes exert a great agency on lunatics. He is often able, "to predict with accuracy what will be the general condition of the Peckham inmates, in respect to perturbation and excitement, before he enters the house."

We are not inclined to agree with our author in the opinion that the aërial mutations in our atmosphere, so sudden and frequent, are the cause of "the nervousness and gloom which are said to be endemical in Britain."—By correct reasoning, these frequent vicissitudes in the atmosphere should make Britons as fickle and variable as our French neighbours. But it is highly probable that moral causes have more to do with moral character, in this country, than the mere state of the atmosphere. Every body knows that the number of suicides in Paris is far greater, in proportion to the population, than in London—which cannot be from climate.

The fifth chapter is on "Pathological, or Proximate Causes. It may be very readily conceived that Dr. Uwins is able to throw little light on the proximate cause of such a disease as insanity. He admits that phrenology, "if correct in its applications, would go a considerable way towards explaining that irregularity of thought and act now supposed."

"But even were this doctrine admitted in all its required latitude, much would still remain inexplicable as to the mode and manner in which the phenomena of madness are produced. The organ of high-mindedness we will suppose to be at work—but what is the kind of change effected throughout its mass? If you answer it is excited, still the question recurs, what is the physical condition by which this excitation is constituted? We know that both brain and nerve are susceptible of the greatest change without any primary alteration, at least of an appreciable or discoverable extent, in the vascular part of our organization, and I hold that the phrenologist is in error, even upon his own principles, if he assume the excitement of an organ to be an inflammation of that organ." 67.

We do not know that the phrenologist maintains any such doctrine as that excitement is inflammation—and therefore the supposed *error* is a gratuitous assumption of the author himself. Some of Dr. Uwins' illustrations of irregular action in the brain are rather curious.

"We further see, that blood shall be conveyed in too large or too small a measure through the portal vein; the biliary secretion shall now flow freely and orderly through its appropriate conduits; now be sent into the stomach, *because* it is either formed in too large a quantity, or finds *a difficult transmission through its ducts.*" 68.

How bile is thrown into the stomach by difficult transmission through the biliary ducts into the duodenum, would puzzle all the physiologists in Europe. How does the bile get into the stomach at all, but through its ducts? Would a total occlusion of the ducts throw all the bile into the stomach? It ought to do so, according to our author's explanation.

We agree with Dr. U. "that mania is not inflammation of the brain, necessarily or originally." He adduces the disease termed "delirium tremens," where the insanity is furious, and yet where opium proves the best remedy.

"In what is considered the low state, as opposed to maniacal flights, and which flights, by the way, often descend to lowness with the greatest rapidity, a morbid state of the liver and its functions is not, as above intimated, unfrequently met with, either as cause or consequence. Respecting the action of this viscus, as well as that of the kidneys, much information is wanting: I mean their actions in reference to their bearings on the animal economy, whether in a disordered or sound condition; it may be, that some states of brain and nerve derangement may grow out of, or have at least some alliance with a want of due quantity or quality in the blood that passes through the *vena-porta;* and in consequence a deficient transmission of venous blood may occasion a retention in the system of what nature designed to be execreted. Or an irregularity in the blood's distribution through the brain may interfere with the cerebral functions; and thus the derangement in bile secretion may be either cause or consequence of brain disorder." 73.

We shall pass over the remainder of this chapter, which thus terminates. "Our conclusion from the whole is the conclusion of Rasselas, in which nothing is concluded."

The sixth chapter, on prognosis, presents nothing remarkable. In the seventh, on prevention, Dr. Uwins seems to fear that he will be considered by some as being—"*bitten* by phrenology." Let the Doctor take heart—it is a mere scratch—it will come to nothing. The following passage is bearing on the phrenological bite. We would almost expect that our author had been taking a lesson or two, *in tongues*, at Babel Chapel, Regent Street.

"On the day immediately preceding that on which I am now writing, (July 8, 1833,) I witnessed the public exhibition of two very extraordinary men; the cranial formation of which men exactly answers to the respective qualities of their mind, as exhibited from the pulpit; and I have very little, if any doubt, that these individuals, had they been differently circumstanced from what they have been, would at this moment have had their heads moulded with proportioned variety. The high imaginative organization of the one, and the combination of these tokens with that of the reasoning and perceptive indications of the other, need only be stated to some of my readers, and they will easily understand to whom I refer.

Who is there that does not estimate highly the grand points of character displayed by one of these persons, mixed, as they are, with so many humiliating vagaries? and who does not feel the value of cultivation, lopping, and pruning, could it be applied to push out those parts of his mental organization, which, from lying dormant, permit the other faculties to take such lofty flights and eccentric courses? There is, indeed, a grandeur in the mental circumstance altogether of the poetical preacher now referred to, which cannot fail of exciting the greatest respect, mingled as the respect must be, with commisseration for his wanderings; and it is especially deplorable to feel that, without any deterioration of his genius, his perceptive and reasoning powers, had they been brought duly out, might have prevented him from becoming the ridicule of inferior men, who eagerly seize opportunities for running down, as it is expressively termed, those rich endowments, to the worth and value of which they are quite insensible." 97.

We confess that the "*rich endowments* and the fine *reasoning powers*" of

the raving fanatic, or rather the transcendental lunatic to whom Dr. Uwins alludes, never excited in our minds, other than pity for the credulity and contempt for the absurdity of the Neophytes, as well as their high priest, in the temple in question.

Our author has introduced some judicious observations, in this chapter, on education, which we hope will be useful to general readers, by whom, indeed, the work will be chiefly patronized. His observations on religion too are sensible and deserving of perusal. But we must pass on to the eleventh chapter, on "the medical management of the insane."

Dr. Uwins observes that nothing could be more inconsistent than the reports made by medical men before the Commissioners of Inquiry, as to the curability of insanity. One lauded this, another that remedy. Emetics were to do every thing, according to the opinion of some—purgatives were almost the only medicines necessary, according to the opinion of others—and so on.

"Whence all this discrepancy and contradiction? In a great measure, I would be bold enough to say, in consequence of the subject being regarded in too empirical a light. Medical men have spoken of curing lunacy, as the vulgar talk of curing a cough. Indeed, while a specific cognomen is made to include so many varieties of degree, the question respecting the curable or incurable nature of insanity cannot well be put. Curable? most certainly it is, when originating from a known cause of a remedial nature, when connected with a bodily affection of an obvious and tangible kind, when taken early under proper cognizance, when happening to the comparatively young, when the constitution it attacks is good, and when the remedial measures are instituted with decision under the guidance of discernment. Incurable? undoubtedly, when it is a disorder of very old age, and comes upon an individual in that gradual and insidious manner, so faithfully delineated by Le Sage, in the concluding part of his inimitable work. When it is the consequence of a sabre or other wound, occasioning an organic lesion of the brain, when it results from an inveterate apoplexy of a particular kind, when other diseases of the brain have produced an organic alteration in a portion of the brain mass, when it is connected with an incurable epilepsy, when the exciting cause has been so sudden and so intense that the whole system of thought and feeling is overturned, as it were, from its base, as in the case I have cited from Mr. Hill; or when the malady has run on from a functional into an unequivocally structural state, which is often the case in the course of a year; but sometimes it takes a longer, sometimes a shorter period, to effect this irremediable change." 190.

Dr. Uwins goes on to make some remarks on apoplexy, as a cause or premonitory symptom of insanity. It is not, however, the common or unequivocal apoplexy that he treats of, but an apoplectic condition or tendency, not very clearly defined. We shall give it in his own peculiar phraseology.

"It is not seldom that a species of chronic action shall have place in the vessels of the brain or its membranes, which shall last a considerable time, proceed to a considerable length, be the occasion of much uneasiness and irritation upon the patient's feelings, and at last produce the absolutely apoplectic condition of suspended sense and motion: this state sometimes terminating in aberrated rather than suspended perception, and then being more entitled to the name of insanity, according to the general acceptation of the word.

Now it is this condition of the brain which it behoves the pathologist and practitioner especially to recognise as a prelude to apoplexy or madness." 192.

Without identifying insanity with cerebral inflammation, Dr. Uwins acknowledges that a great proportion of our suicidal cases, and "a large number of mental aberration, owe their origin to the vascular, insidious, slow action in the brain and its membranes now supposed."

"This is especially the case in the insanity of those individuals who, by their professional calling and public functions, *stretch their brain power beyond its capacity of endurance*—and when we hear of the fate of such men as Romilly, Whitbread, and Londonderry, we should look upon these men as having been upon the brink of either apoplexy or madness, and only having been preserved from it by their own hands!" 192.

The line which we have marked in italics is a fair specimen of the peculiar and singularly uncouth phraseology which our author appears to take infinite pains to employ, though nothing can be more barbarous or grating to the ear. Dr. Uwins can write very well, if he pleases; but he evidently studies more to be rough than smooth in his language.

We extract the following piece of practical information from the work.

"Now, beyond bleeding and purging, I know nothing to which we can attach much value in apoplexy; it is, however, of importance that while we are decided and bold in cases of abolition of sense, occasioned by a rush of blood and inordinate fulness, with sthenic condition of body and brain, that we stay our hands from too much depletion, either in the apoplexy of hæmorrhage or that of serous debility. Indeed, this last is perhaps not of very common occurrence; but there is a chronic condition of brain, which may be viewed as in some measure allied to a serous state of the organ, and which is often to be met with in early life. Children are constantly under my inspection, whose brains, instead of going through the natural or healthy process of growth, become enlarged, and the infantine faculties are in corresponding hebetude; but which chronic children you cannot pronounce to have positive hydrocephalus, even of the chronic kind; it should rather seem that there is a debility in the exhalent, or rather, supplying vessels, and a proportionate weakness in those vessels which take up part of the deposit, so that although growth or enlargement goes on, and is even increased unduly, the subject thus developing itself is not true and healthy brain mass. In these cases I have found abundant benefit to attend the use of exceedingly small doses of fox-glove. Two drops of the saturated tincture given three times a day are soon followed by manifest improvement. The exhalent and absorbent vessels, or, if you please, the exhalent and absorbent power of the blood-vessels, is increased by these small doses of digitalis; the pulse becomes improved, the flesh more firm, and the brain in a better state. When with these appearances of the brain, a disordered condition of the mesenteric vessels displays itself by tumid knotty abdomen, and alvine discharges of an unhealthy appearance, I combine two or three grains of the *hydrag. cum creta* with the night dose of fox-glove; but although some might be disposed to ascribe all the benefit to this last medicine, they would be in error in so doing, since I very often administer the other medicine alone, and with as much satisfactory result as can be expected to follow any curative plan applied to chronic maladies.

There is another state of things in which I have found—at least if my perceptions do not mislead me—this extraordinary drug to be administered with extraordinary success. Patients are constantly applying with complaints of feelings about the head, and throughout the whole frame, which produces an indescribable irritability; their tempers, they say, are soured they know not why; their thoughts are confused in a manner they cannot account for; they feel at times as if they were going to lose their senses. Now, if added to these statements of your patients you find a sort of knitting in the brow, a wiryness, as also a quickness about the pulse, and a febrile condition of the skin, with the secretions rather less and of a higher colour than *merely* nervousness gives rise to, it is fair to presume upon some such condition of the brain as that in the puerperal case alluded to above, and it will be found that fox-glove often applies itself to these cases with happy effect. I am now speaking of adult affections, and the average dose of the medicine I am accustomed to

order is from ten to fifteen drops of the saturated tincture two or three times a day. In these instances we have the arterial power, or rather irritation, lessened, while a general tone is at the same time imparted; and it is a very curious fact, that digitalis, when it does do good in these chronic irritations, always improves the pulse by improving the tone of the arteries." 197.

From the Doctor's remarks on epilepsy, hypochondriasis, and several other affections connected with or leading to mania—together with his cursory observations on the usual remedies employed, we do not see any thing either very new or very striking to extract. We must therefore close our notice of the work in the recapitulatory words of the author himself.

"'Madness is a term that means every thing, and means nothing.' Although we admit its essentials to consist in a vivid conception, to the extent of actual belief in unreal things, or the exaltation of the fancy into supposed perception; as it must at the same time be admitted, that delusion, more or less substantial and confirmed, is the occasional fate of us all, it follows, that the difference between sanity, and acknowledged insanity, is rather a difference in degree, than in kind.

Or take it in another way. 'Madness is a disease of motives;' the nervous invalid who is not susceptible of sane impulse, who cannot rise from her chair and pace the room, who is incapable, for the present, of feeling for her family as she was wont to feel, merely requires her susceptibility to common motives to be reproduced, or such an application of the motives on the part of others, or as the result of incident, that they shall act with sufficient force to subdue the insensibility or inaptitude, and the malady is cured. Incapacity, was therefore, in her case, both real and ideal; but she was, in point of fact, as mad as the loudest bawler in a solitary cell of a lunatic asylum." 227.

Dr. Uwins is, unquestionably a judicious and experienced physician, very cautious of all extremes, both in theory and practice—and appearing always to keep in view the wise maxim—"in medio tutissimus ibis." But this very caution and balancing between extremes, produces a degree of wavering and incertitude in Dr. Uwin's writings, which leave a doubt upon every subject, in the mind of the reader—especially of the inexperienced.

## VI.

**A COMPENDIOUS HISTORY OF SMALL-POX; WITH AN ACCOUNT OF A MODE OF LOCAL TREATMENT WHICH PREVENTS THE SEAMING OR SCARRING OF THE SKIN, AND THE OCCURRENCE OF THAT AGGRAVATION OF SYMPTOMS IN THE ADVANCED STAGES OF THE DISEASE HITHERTO DENOMINATED SECONDARY FEVER.** By *Henry George*, Surgeon, Surgeon Extraordinary to H. R. H. the Duke of Glouster. Octavo, pp. 112. Sept. 1833.

A HISTORY, however compendious, or however learned, of the small-pox, at this time of day, could scarcely be contemplated by any member of the profession, were there not improvements in the treatment or prevention introduced, to secure public attention. Yet Mr. George has contrived to make a short historical sketch of small-pox, however trite the subject, considerably interesting, while he has shewn that he was capable of searching ancient writings and records to which few modern authors have recourse. On this part of the book, however, we cannot dwell, since the sketch itself is a kind of condensed analysis.

Under the head of treatment, Mr. George remarks that, considering the innumerable suppurating processes going on in the skin, during confluent variola, and the extensive chain of sympathies between the surface and the internal organs, the wonder is, that the mortality is not even greater than it actually is. Our author is induced to doubt whether the tumult or ebullition in the constitution, under small-pox, is not referrible to nervous irritation rather than high vascular action. Fordyce had similar doubts, and was anxious to separate from the class pyrexia, those sympathetic or symptomatic fevers depending on local inflammations, among which he reckoned variola, as the following passage from his work shows.

"In the small-pox, if the infectious matter be applied to a wound, an inflammation is produced in that wound, in consequence of which a fever arises; if the poison of a bee be infused into a wound made by the sting of the animal, or if the poison of any other animal be injected into a wound by its sting or tooth, an inflammation arises in the part where the wound is made, and that inflammation produces affection of the whole system, some of the symptoms of which may be similar to fever, but are not the disease intended to be described here by that name. It might happen that a great inflammation might be immediately produced in a wound into which variolous matter was infused, that such an inflammation may produce affection of the whole system in a day or two afterwards; yet that affection is by no means to be called fever, which takes place, being only induced after the suppuration of the wound is complete, which is on the seventh or eighth day. It is also to be observed that when, in consequence of a fever, produced by infectious matter, some topical inflammation arises, and the fever is carried off by it, that such topical inflammation as in the small-pox produces affection of the system, in which some of the appearances are similar to some of the appearances which take place in fever: such affection of the system has frequently been called fever. In the small-pox, for instance, such affection has been called secondary fever, although it in no way has any thing of the essence of the disease." 58.

Many authors and practitioners consider the secondary fever as a kind of essential one, requiring the usual depletive measures; but the best medical practitioners regard the secondary variolous fever as of the irritative class, analogous to that from a poisoned wound—or from any wound in a bad constitution. One of the distinctions which Mr. G. draws between small-pox fever and other fevers, is the non-suppression of secretion in the former.

"From my own experience I would venture to assert, that in the different stages of small-pox, none of these appearances (non-secretion) are to be observed. The kidneys (if we do not treat the disease as febrile) act plentifully, the bowels require very trifling assistance to procure the most satisfactory relief, and the appetite, depending of course on the secretion of the gastric fluid, becomes almost voracious, if our medicated remedies in the early stages of the disease are selected with the view of tranquillizing the system, and at the same time sustaining its powers. I have already expressed a belief that the formidable symptoms in the advanced stages of this disease are partly to be attributed to our own mismanagement at its commencement. One important consequence of strictly treating this malady as fever in its early stages, is to deprive the patient of this very appetite. This effort of nature to support him under the severest of trials—this resource is totally or partially subdued by our very remedies, and the nourishment which is permitted in no way tends to mitigate the evils; the stomach is well known to possess a power almost magical over every portion of the body: the state of discontent above mentioned aggravates the constitutional disturbance, and a series of diseased actions in the latter stages of this malady are, by the advocates of the existence of fever, again aggravated by the employment of the very remedies which have in some degree contributed to produce them. If we have not fever to contend with, I believe that rule of conduct would be most excellent, which would seriously warn us to beware of offending this organ (the stomach.) 65.

This, we confess, is a startling doctrine, and, as Jonathan says, "requires confirmation." We have no hesitation, however, in saying, that we have seen very injurious consequences result from treating the eruptive fever of this and other specific diseases, by active depletion. The constitution is evidently labouring to throw out a poison upon the surface of the body—and that labour assumes the form of an inflammatory fever. If the powers of life be interrupted (they occasionally require control) the eruptive process will be incomplete, and much mischief will be incurred. The worst of it is, that variola is very often mistaken for some other complaint till the eruption appears, when it is sometimes too late to retrace false steps. The best way is to watch carefully, and rather moderate than check the constitutional symptoms.

The local treatment which our author has found beneficial, was pointed out about two or three years ago, in the Medical Gazette, the sum and substance of which are contained in the following quotation.

"The treatment consists in covering the body as completely as possible, with any absorbent powder, (I have generally used the calamine;) the advantages which follow the use of this dressing in the early stage of this disease, are, to moderate the violence of the local inflammations, and to prevent the painful tumefaction of the common integuments. After the calamine has been applied some hours, a very sensible difference is to be observed in the appearance of the parts so covered; the areola of each pustule being much less distinctly marked. It is not unreasonable to suppose, that even at this moment some advantage is gained by the application; the quantity of pus secreted may by this circumstance

be diminished, and a great saving made of the powers of the constitution; but it is in the advanced stages of this disease that the greatest benefit is derived from this method of local treatment, particularly at that period which Sir Henry Halford, in his Essays and Orations, points out as being eminently critical. In the essay entitled, 'On the Necessity of Caution in the Estimation of Symptoms in the Last Stages of some Diseases,' it is observed, that 'The physician may fairly acquiesce in the fears of a family, when, on the completion of the eruption, he sees the face and breast one mass of disease, and may most reasonably doubt the capability of the constitution to maturate and perfect so large an eruption. But he must not hold out unfounded hopes to the parents, if the malady proceeds in the next stage, in a most satisfactory manner, beyond his expectations; the pustules ripening fully, and the process being complete; for, alas! at this very moment, it may be, the patient is sinking—is dead. The powers of his constitution being exhausted by the efforts it has made, and no longer equal to the accomplishment of a protracted cure.' At this crisis, too, in addition to the source of danger above-mentioned, might well be added another of the greatest magnitude; viz. those large portions of exposed cutis which about this time are torturing the sufferer beyond endurance, rendering his situation so truly horrible that to exclaim—

Di meliora piis, erroremque hostibus illum,

would be almost justifiable.

As I said before, it is at this moment we have it in our power not only greatly to circumscribe the field of suppuration, but to heal, on destroying the cuticle, by the process recommended, every pustule on the body, almost in the space of a few hours. At such a crisis what an immeasurable advantage is gained by the exercise of such a power! the drain on the constitution may thus at our discretion be partially or completely closed. To accomplish this, is indeed, as I have experienced, a disgusting and painful task; but what difficulties will not with alacrity be encountered by the hand of duty or of friendship. By the same process, those extensive portions of exposed cutis may be rapidly healed; exclude them also from communication with the atmosphere, and they soon cease to be sources of irritation. I have seen patches of exposed cutis, six or eight inches in diameter, at the end of two or three days, by this treatment, no longer occasioning disturbance. If no other benefit followed than the mere relief from pain, great must still, by every feeling mind, be thought the advantage; for it is impossible to imagine the agonizing sufferings of the patient, from this circumstance. I have often seen every nerve of the body quivering with distress on the slightest exertion, and have as often witnessed the firmest mind sinking into a state of almost childish weakness, from the extremity of the sufferings." 74.

Fifteen or twenty years ago it would have been thought useless to say any thing about the nature or treatment of variola, since we were then considered to be in possession of an infallible preventive, or at least substitute, for that disgusting and disfiguring malady—in the mild disorder, VACCINIA. But it is not to be disguised that TIME has greatly diminished the protective powers of vaccination; and we see so many instances of subsequent variola, and that of a very violent kind, that we greatly doubt whether, if every lustrum or decade continues, in the same ratio, to exhibit failure, the public or the profession will, one hundred years hence, know any thing of cow-pox, but from history!! We have been strenuous advocates for vaccination, and still continue to recommend it, in preference to inoculation, when our opinions are asked; but we should be very loth to urge it on parents in the same energetic manner that we did fifteen years ago. To represent vaccination as an infallible, or almost infallible preventive of small-pox, is more

than we would do—and we apprehend that it is more than is justifiable by any conscientious practitioner. There is one evil (among some thousands of others) to which humanity is liable, from the moment that man leaves his cradle—VARIOLA. Of the two preventives or substitutes, inoculation is the more certain, but the more severe—vaccination the more easy (free, indeed, from suffering), but the less powerful protector. If this estimate be not correct, it is at least honest.

## VII.

ILLUSTRATIONS OF THE EFFECTS OF POISONS. By *George Leith Roupell*, M.D. The Plates from original Drawings by An. Melville M'Whinnie, M.R.C.S. Quarto, Part the First. Nicol, Pall Mall, Oct. 1833.

THIS is the first part of a series of drawings, illustrating the effects of the most ordinary irritants on the mucous membranes, and intended to prove useful, not only to the lecturer on forensic medicine and to the general pathologist, but also to those members of the profession, resident in the country, who can meet with few opportunities of witnessing such injuries to the internal surface of the digestive tube, and for which their evidence is often sought in courts of justice. As the plates are taken partly from the effects of poisons on man, and partly from their effects on animals, the author anticipates the following questions. Do poisons exert the same influence on man and on animals? Do the effects of irritant substances differ so essentially from each other, as to furnish distinctive indications? The first inquiry, Dr. R. answers by a quotation from Orfila—which, liberally translated, may be thus stated:—"After making more than three thousand experiments on dogs, the only difference between the symptoms and leisons in them and in man, consists in the difference of dose necessary to carry the malady to the same degree—in the influence of the *morale*—and in the relative strength of the two classes of animals—circumstances which operate merely on the intensity of the symptoms—of the organic leisons—and on the duration of the disease produced."

With regard to the second question, viz. whether the effects of different irritants essentially vary? He can only say that very many substances, and those most frequently employed as poisons, occasion certain change (when their effects have been fully produced) capable of representation, by which they may be easily distinguished.

"It is not presumed that the appearances met with after death by poison will supersede other modes of investigation, and exclude other kinds of proof, such as the study of symptoms or chemical analysis. My intention in undertaking this work is to afford to the pathologist an additional means of recognizing the consequences of injury of this nature. It is, however, interesting and important to establish the fact, that the effect of certain irritants is peculiar; so peculiar, indeed, that under circumstances favourable to their action, the appearances to which some give rise are evidence sufficient, not only to prove

the fact generally that poison had been swallowed, but to satisfy us of the kind of poison actually resorted to.

One object on the score of humanity I have had in view, viz. by the fidelity of the representations to obviate any necessity for the repetition of these experiments; such as presented any unexpected result have been several times performed, and the appearances exhibited have thus been authenticated."—*Preface*, vii.

Mr. Joseph Perry has been engaged to execute the lithography and to colour the engravings—and his part has been ably executed. The drawings, and some of the lithographic impressions, were exhibited at the British Scientific Association, recently held at Cambridge—and the author was fortunate enough to receive, not only the approbation of the medical section, but a grant from the funds of the Association in furtherance of his views.

The illustrative plates, in this Part, are four. The first is designed to shew the effect produced by a large dose of arsenic.

"At two o'clock, p. m. on the seventeenth of January, having kept a large strong dog without food for twenty-four hours, I introduced a drachm of powdered arsenic into his stomach through an opening made in the œsophagus, which was afterwards tied in the manner recommended by Professor Orfila, to prevent the rejection of the poison by vomiting. On removing his muzzle, he displayed such determined ferocity, and was so little affected by the operation that it was necessary to confine him. In about ten minutes, however, he appeared faint, and in a quarter of an hour he made attempts to vomit.

When visited at four o'clock, two hours after the administration of the poison, he appeared to suffer extremely, frequently varying his position. Retching was urgent and constant, and numerous evacuations from the bowels took place. He continued nearly in the same state until eight minutes befor nine, when he died; within seven hours from the time of exhibiting the arsenic.

Examination seventeen hours after death.

The limbs were rigid.

The lungs presented a red appearance, which pervaded their whole tissue, but no change of structure was observed.

The peritoneal surface of the intestines had a rosy hue, the mucous membrane was inflamed in parts, but not intensely.

The stomach and duodenum presented the appearances exhibited and explained in the next page.

PLATE I. represents the stomach, part of the œsophagus and duodenum of a dog poised by a drachm of arsenic, laid open along their anterior part.

The contracted part towards the centre of the plate denotes the situation of the hour-glass contraction.

The œsophagus is of a rose colour, which results partly from increased vascularity beneath the cuticular lining, and partly from staining by blood effused into the stomach, and brought into contact with the membrane, either by vomiting during life, or accidentally after death.

The peritoneal coat of the stomach and duodenum is red and streaked with numerous blood-vessels, but is free from any deposition upon its surface.

Internally, from the entrance of the œsophagus to the contracted part which marks the commencement of the pyloric extremity (two thirds of its whole extent) the stomach is of a deep crimson colour, except in some spots which are covered with portions of yellow matter, these are the arsenious acid itself envolved in mucus, and adhering to the rugæ, but easily detached by the scalpel.

At the contracted part, the deep crimson colour abruptly ceases, and the pyloric end of the stomach and the duodenum only exhibit a few portions of arsenious acid surrounded by a red areola. The diffused yellow tint is owing to the mucous membrane being tinged with bile.

This plate exhibits clearly the simple irritant effect of arsenic. The larger end of the stomach where the hour-glass contraction had forcibly retained the poison in the greatest quantity is intensely and universally inflamed, and the smaller end of the stomach and duodenum, into which lesser portions of the poison had escaped, exhibit only circumscribed patches of inflammation around the spot where the arsenic is deposited.

The mucous membrane has undergone no chemical change by the poison. Neither ulceration nor sloughing has taken place, life was destroyed during the first process of inflammation.

The upper portion of the alimentary canal I have found chiefly inflamed when death has quickly resulted ; the lower when life has been prolonged."

The plate itself is beautifully executed and coloured.

The second illustration shows the effect of arsenic on the human stomach. A young woman was brought into Bartholomew's Hospital who had taken arsenic, and who was vomiting and suffering acute pain at the epigastrium. The quantity of arsenic taken was not accurately ascertained. She died in nine hours, notwithstanding the use of the stomach-pump. Were it not that in several places the mucous membrane of the stomach was torn by the stomach-pump, there would be considerable similarity between the two plates.

The third and fourth illustrations are to shew the effects of nitric acid on the stomach of a dog, and on that of a human being.

*Exp.* 1. "At twelve o'clock on the second of March two drachms of concentrated nitric acid were introduced into the stomach of a young dog through an opening in the œsophagus. He exhibited no outward signs of pain at the time, but when placed on the ground he sunk as if exhausted. He made no attempts to vomit. He remained lying on his side in a sort of stupor, when lifted up he fell, but still gave no indication of pain, except that when disturbed he uttered a low moan. At six in the evening he was yet alive, but he was found dead and stiff at ten.

The dissection was made fifteen hours afterwards.

On opening the abdomen a large quantity of coagulated blood of a dark brown colour, was found in the cavity of the peritoneum.

The peritoneum was not inflamed.

The stomach was perforated in two places and disclosed the appearances represented in the following plate.

### PLATE III.

Represents the stomach, part of the œsophagus and duodenum of a dog destroyed by nitric acid.

The œsophagus is of a reddish colour.

The stomach is perforated in several places. The edges of the apertures are abrupt and jagged. The mucous membrane at the larger end is in some parts of a bright red ; these portions were vascular and but little altered in structure, having been protected apparently by effusion of blood, coagula of which were adherent to them. The coats of the stomach immediately adjoining the perforations were black and thinned, though they retained a considerable degree of firmness.

All the coats of the duodenum and of the pyloric portion of the stomach, except the peritoneal, are of a green colour.

The mucous membrane of the duodenum exhibits its surface full of cracks and fissures The whole intestine has an appearance of permanent distension, which results from the induration of its coats.

Here it is shewn that acute pain is not a necessary attendant on the most sudden and

extensive injury of the stomach, and that perforation may take place and life still continue for many hours.

In this case the œsophagus escaped injury from the acid, which was introduced by a glass tube into the stomach, the redness is attributable to accidental staining.

The colour of the duodenum is owing to the action of the acid on membranes already tinged with bile. I have since this experiment repeatedly produced a similar effect on the dead subject. This is not however the peculiar effect of nitric but is common to all the concentrated mineral acids."

This plate is still more ably executed and beautifully coloured than either of the former.

*Case in the Human Subject.* A lad 13 years of age, supposing he was going to drink beer, swallowed a mouthful of fluid, which proved to be nitric acid. Acute pain was felt in the mouth and throat. Magnesia was administered, and vomiting was quickly induced. The ejected matters were chiefly food partially digested. Great constitutional depression followed, the chief distress being referrible to the laryngitis. Laryngotomy was performed by Mr. Arnott, but the boy died in thirty-six hours. The lesions, peculiar to this acid, were confined to the tongue, palate, fauces, tonsils, and lining membrane of the pharynx and œsophagus.

"Plate IV. represents the tongue, tonsils, pharynx, and a part of the œsophagus of a boy poisoned by nitric acid.

The basis, edges, and tip of the tongue with the lower part of the œsophagus are seen to be deprived of their cuticular lining. What remains of this lining adherent to the rest of these parts and to the tonsils and pharynx is of a citron colour. The portion which covers the tongue is ragged at its edges, that which covers the pharynx and œsophagus is dry, corrugated, and marked with longitudinal and transverse lines. It was every where capable of being readily stripped from the parts beneath; these are vascular but not in a high degree.

The edges of the entrance of the glottis are extremely swollen. The epiglottis is shrunk so as to be scarcely recognized.

No traces of the effects of the acid were discovered in the stomach except at the pyloric extremity, where the orifices of the mucous glands were stained of the same citron hue as the cuticular lining of the tongue, pharynx, and œsophagus.

The characteristic colour produced by the action of nitric acid is here well exhibited.

The food contained in the stomach probably defended its coats, but that some of the poison entered it was shewn by the stain which was observed near the pylorus, but which was thought too slight to require delineation in this plate.

From noticing the appearances and morbid changes here detected, we may readily believe the account of the extensive portions of membrane stated to have been detached when nitric acid has been taken. In this instance the whole of the membrane acted on by the acid might have been stripped off in one continuous portion. The performance of laryngotomy is an interesting feature in the treatment in this case, but it is no part of my plan to discuss this on the present occasion."

On account of the different modes in which the acid was taken in these two cases, the plates cannot be expected to exhibit the same appearances. As far as the œsophagus is concerned, however, there is sufficient analogy between them.

Of the great merit of the work, in point of fidelity and ability of execution, there can be but one opinion. How far plates, however well executed, can be depended on, in determining the nature of the poison taken, and the certainty of its being taken at all, in a forensic point of view, are questions which we do not feel ourselves capable of answering. The enterprise is assuredly deserving of every encouragement which the profession can bestow.

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## VIII.

## WORKS ON MORBID ANATOMY.

I. PRINCIPLES AND ILLUSTRATIONS OF MORBID ANATOMY, &c. By *Dr. Hope*, Part VII. October, 1833.

II. ILLUSTRATIONS OF THE ELEMENTARY FORMS OF DISEASE. By *Robert Carswell*, M.D. Professor of Pathological Anatomy in the University of London, &c. &c.

III. ANATOMIE PATHOLOGIQUE DU CORPS HUMAIN. Par *J. Cruveilhier*. Quatorzieme livraison, I et II.

I. THE first of these meritorious works goes on successfully, because ably conducted. The present part opens with the fourth chapter, entitled "Ulceration of the Alimentary Canal." But before giving illustrations of the morbid condition in question, Dr. Hope introduces an exposition of the healthy state of the mucous glands, now so well known as the glands of Peyer, Brunner, &c. In various parts of this Journal, we have given, especially in our review of M. Bretonneau's work, a physiological as well as pathological account of these glands, and therefore we may pass over the subject here, with very little notice. It is sufficient to say that they are very beautifully represented in these plates. Speaking of the isolated and aggregated glands, as more developed in children than in adults, Dr. Hope observes :—

"I am inclined to believe that the high vascularity and irritability prevalent at this age, render the glands subject to temporary and physiological intumescence from healthy stimulants, particularly such as have an aperient tendency; for instance, recent fruits, vegetables, &c.

In confirmation of this view, and as illustrating the superior proneness of the glands to intumescence in children, I may refer to malignant cholera, in which I have almost invariably found the intumescence affect children, while, in adults, it is of comparatively unfrequent occurrence.

Independent of cholera, it is extremely rare, in adults, to see the glands developed to the extent which I have referred to as common in children, unless the patient have died of protracted diarrhœa, or been carried off by an intercurrent disease while convalescent from gastro-enteritis, or fever. In diarrhœa, it is principally the isolated glands that are enlarged; in fever, it is the patches of Peyer. The condition of the glands, in both these cases, is considered by Andral (Path. Anat. ii. 57,) to be that, not of mere intumescence, but of *hypertrophy*, resulting from the irritation with which they had been for some time affected. He believes, therefore, that a great development of the intestinal follicles is not a natural state in the adult. The state, however, when once excited, may, in some

instances, continue to exist, without producing any ill effects; as is proved by the fact that it has been found, although the subjects of it had not laboured under any disease of the alimentary canal for a reasonable period before death. In the majority of cases, however, it does produce ill effects: namely, diarrhœa, dysentery, and general irritability of the intestinal canal." 178.

In conclusion, Dr. Hope thinks that he may state, in general, of the mucous glands, that they are more apt to be developed in some individuals than in others—that in children, the liability to intumescence exists in a high degree; whilst in adults, it prevails to so limited an extent as in most cases, to require for its production, a stimulus amounting to disease.

### The Mucous Glands in Malignant Cholera.

"To the state of the mucous glands in malignant cholera I have already incidentally adverted. As this state is not one of health, and as general authority does not sanction its being classified with the effects of inflammation, it may be appended as a corollary to the present subject, with which it has some affinity from the circumstance, that the physical characters of the isolated glands when enlarged by cholera do not differ from those observed in children in a state of health. Accordingly I have used the same drawing (Fig. 141) to illustrate both. In cholera, it is principally children and young people who present the glandular enlargement. The number of pale, round bodies, like mustard-seeds, is often prodigious; they sometimes pervade every part of the canal, and they are attended by an excessive sero-mucous and albuminous secretion, of which they are no doubt the principal source. During the prevalence of spasmodic cholera in London in 1832, I witnessed numerous cases of this alteration. (For cases, see Description of the Plates, Fig. 141.) Two years previously, it prevailed at a boy's school in Clapham, having originated in the effluvium which escaped on opening a cess-pool. From one of the sufferers, I took the drawing of Fig. 141. Rœderer and Wagler have described and delineated the same, as occurring in an epidemic at Göttingen; two analogous cases are given by Billard (De la Membr. Musq., Obs. 44 and 45), and many others are to be found in the writings of various authors.

The patches of Peyer I have not observed to be enlarged in cholera, except the case had lingered, and terminated with low fever, when their state was found to be that of ordinary inflammation, as described in the following section." 179.

Dr. Hope next proceeds to the consideration of inflammation and enlargement of the mucous glands, representing them in very beautiful and faithful plates. From the description of these plates, we extract the following interesting passage:

"*Case.*—Malignant cholera at Clapham, nearly three years before the general irruption of the same disease in Great Britain. An old cesspool having been opened, and its contents thrown out immediately contiguous to the play-ground of a boys' school, twenty-two boys were, within two days, attacked with the disease.—*Symptoms.* Most alarming vomiting and purging, with prostration appearing, in many, to threaten instant death. Stools for the most part pale, consisting of mucus and muco-purulent matter, slightly streaked with scarlet blood. Matter vomited was, in the great majority of cases, colourless and inodorous. P., in the early stages of collapse, was very frequent, but scarcely perceptible. Skin cold and clammy. In a few, it was, for a short time, hot, with flushing in the face. In some, slight tenderness and tension of the abdomen existed, but no pain was complained of beyond griping before the stools. Twitching, rather than cramp, of the muscles of

the upper extremities. The stage of collapse was, in the most favourable cases, succeeded, under the use of stimulants, by a stage of warmth, gentle moisture, and general re-action. My friend Dr. P. M. Latham, (who, with Dr. Chambers and Mr. Pearson, was in attendance,) on seeing thirty children affected with the epidemic cholera in February, 1832, under my care at the St. Marylebone Infirmary, stated that, 'from the identity of the symptoms, he could have imagined himself to be again in the midst of the scene at the boys' school.'

*Treatment.*—Brandy and other stimulants with opium during collapse. Leeches to the heads of a few during re-action. Mustard poultices on the abdomen. Enemata; afterwards, full doses of calomel and opium.

Two died within twenty-five hours; the rest recovered in the course of a week.

*Sectio* of one.—Exterior of the viscera apparently natural. Stomach healthy. Duodenum as represented in Fig. 141, (the specimen being obligingly given to me by Dr. Chambers.) Jejunum exhibited few isolated glands at its upper part, but more below; while the ileum was universally studded with them; and also with patches of Peyer, somewhat enlarged. No glands were found in the great intestine; but its mucous membrane was, throughout, *uniformly* congested, pulpy, and very easily separable from the subjacent tissue. (In the other fatal case which was examined, the isolated glands of the ascending and transverse colon were universally enlarged, giving the whole interior an appearance of tuberculation.) Contents of the bowels were nearly colourless, and had no fæculent or any other peculiar odour.

*Remarks.*—Int he Med. Gaz. March, 1832, I have given the dissections of one child that died, out of the thirty-one cases in the St. Marylebone Infirmary, and also of some others. The identity of the symptoms and *post-mortem* appearances with those of the present case, proves, if other proof were wanting, that the malignant cholera existed in England before 1832, and was not necessarily an importation from India." lii.

The plates in this part or fasciculus, are equally as well executed as in any of the preceding parts, and on those we have often expended a well-deserved panegyric. Drs. Hope and Carswell will place England on a par at least, with the foremost of our continental neighbours, as far as respects pictorial delineations of diseased structures. They therefore deserve, in an unusual degree, the patronage of the profession in this country. Shame on the man, who can afford a few pounds annually, and who shall withhold his mite of encouragement from such meritorious undertakings!

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II. The third Fasciculus of the able work of Dr. Carswell is occupied with the continuation of the subject of Carcinoma. An account of the second Fasciculus is contained in the thirty-seventh number of this Journal. The conclusion of that part was occupied with the history of the origin of carcinoma. The present is devoted to more tangible facts—to the physical history of the malady.

### PHYSICAL CHARACTERS OF CARCINOMA.

1*st Form.* This exhibits considerable varieties. Carcinoma, in the first instance, assumes the particular form of the organ in which it is deposited. At a subsequent period its form is more defined, in proportion as the original structure disappears. Its varieties then are determined by accidental circumstances, and arranged by Dr. Carswell into the *Tuberiform*, *Stratiform*, and *Ramiform*.

The *Tuberiform* arrangement is met with most frequently, and presents great variety. When deposited in organs possessing an uniform density, and submitted to an equal amount of pressure on all sides, it assumes a globular figure. On natural and accidental serous surfaces, though globular at first, it often becomes pyriform afterwards. It assumes a fungiform shape when placed in circumstances which facilitate its lateral or retard its anterior developement, as when it meets with a dense unyielding substance during its progress, or, having pierced the skin, is subjected to pressure. When accumulated in separate portions of the cellular tissue into rounded masses, grouped together, and included within a common capsule, it generally presents a lobulated appearance; and in the submucous tissue in particular, it frequently exhibits the external arrangement of the cauliflower or mulberry. That appearance of Carcinoma which resembles the structure of the pancreas, depends generally on the agglomeration of very small globular or pyriform tumours, separated from one another by cellular or cellulo-fibrous tissue, but inclosed in a common capsule.

Such are the physical reasons adduced by Dr. Carswell, for the many tuberiform varieties of carcinoma. Whether those reasons are satisfactory in all instances, it happily does not fall to our province to decide. Yet we may probably be permitted to remark, that not only the configuration, but the actual nature of these morbid growths, now ranked under the generic term of carcinoma, would appear to present some mysterious differences. It has long been noticed that the tumour resembling the structure of the pancreas is not so malignant as that which presents a decidedly medullary appearance; and some of the lobulated tumours of the breast would seem to be merely on the confines of cancer.

The *Stratiform* carcinoma must necessarily be described in the words of Dr. Carswell. It is chiefly seen in the subserous cellular tissue.

"Although it may be deposited in layers of various extent which present no definite arrangement, it more frequently assumes the form of thin circular patches, varying from the breadth of a pin's head to an inch or more in diameter, and presenting an appearance similar to what might be imagined to follow the infusion of a small quantity of milk into a number of isolated points of the subserous cellular tissue. Patches of this kind, which are composed of a substance having the colour and consistence of cream or milk, are most frequently met with beneath the pia mater and pleura pulmonalis, and are remarkably conspicuous in the latter situation on account of their white pearly aspect contrasting so strongly with the surrounding dark colour of the lungs. These patches may occur in the situations I have named without the substance of the brain or lungs presenting any trace of Carcinoma; but I have never met with them unless when the disease existed in some other organ, as the breast, eye, liver, stomach, kidney, or uterus. In some cases, lymphatics filled with fluid carcinomatous matter are observed to communicate with the patches; in other cases no such vessels are observed."

The *Ramiform* arrangement depends upon the presence of carcinomatous matter in the veins. It is witnessed more conspicuously in the kidneys than in any other organ. The whole of its venous system, to the termination of the emulgent vein in the vena cava, is sometimes found distended with carcinomatous matter, either fluid, of cerebral consistence, or possessing the firmness of pancreas. A similar arrangement is sometimes remarkably conspicuous in the stomach, and the abdominal division of the vena portæ is

said by Dr. Carswell to furnish a remarkable example also, unconnected with any organ affected with the disease.

Our author observes that another variety of form may be noticed—that dependent on the presence of carcinomatous matter in the lacteals and lymphatics. The former contain it more frequently, perhaps, than the latter. He thinks it incorrect to conclude that lymphatic glands situated in the neighbourhood of an organ affected with carcinoma, always become implicated through the medium of absorption. He remarks that these glands are frequently found to be extensively diseased, the lymphatics presenting no trace of carcinomatous matter. But we apprehend that this test is fallacious, and a common and striking analogical instance will serve to display the objection that readily presents itself to the mind. The syphilitic bubo is seldom attended with any appreciable affection of the lymphatic that connects the gland with the sore.

2. *Bulk.* This varies with the seat of carcinoma, and the pressure to which the tumour is subjected. Perhaps it is never so great when the disease is in the molecular structure of organs, as when it is found upon their free surface. The influence of pressure is conspicuously observed in several striking examples. The carcinomatous tumour of the eye, which for several months may have struggled to reach its external surface, increases with frightful rapidity after destruction of the cornea, and returns with surprising celerity after it has been once removed by operation. The same law will probably account for the speedy augmentation of bulk which a fungous tumour displays, when sloughing or ulceration of the skin has allowed it to protrude externally. Dr. Carswell states that the restraining influence of pressure is more apparent in scirrhoma than in cephaloma, or, to use the more current language of the day, in scirrhus than in fungus hæmatodes. The professional public will probably recollect the confident promises and the failure of Mr. Young, who hoped to cure cancer by systematic pressure. There cannot be a question that he frequently retarded or arrested the growth of the tumour submitted to his bandages, but the patients died, as might safely have been anticipated, from scirrhous contaminations of other parts.

3. *Colour.* An accurate acquaintance with this is essential, because it is a grand characteristic of the disease.

"It is most frequently white, with a shade of grey or blue; sometimes it inclines to yellow, brown, or red, in consequence of the colour of the organ affected with the disease, of the presence of blood, bile, pus, or other fluids in various proportions, or of some other accidental circumstance. But the principal modifications of colour of Carcinoma are seen in the several varieties of both species of the disease; these varieties, as I have already stated, resembling more or less in colour that of the organ or tissue whence have been derived their respective appellations, as that of cartilage, of the pancreas, of fresh or boiled pork, of coagulated albumen or fibrine, of the mammary glands, of the cerebral substance, or a mixture of the latter with blood."

We cannot but remark that however peculiar the tint of carcinoma may appear, it is frequently difficult to distinguish the real nature of the tumour by this very obvious character. Many of the tumours removed by operation from the female breast, have the colour of carcinoma in an eminent degree,

when circumstances render it unlikely that they participate in its other and more formidable features.

4. *Consistence.* Dr. Carswell exposes the falsity of the hypothesis, that the soft carcinoma was indurated scirrhus in its origin. The variety of consistence is referred by him to the three following and leading circumstances; —1, The nature of the containing organ—2, The elementary composition of the deposit—and, 3, The changes which occur in the deposit, or the tissues with which it is in contact.

With regard to the first it may be roughly stated, that the softer tissues present the softer varieties of carcinoma, and that pressure tends to effect its consolidation. But the second consideration informs us that this general statement is not universally correct, and that carcinoma, of every consistence, *may* be formed in any and in every organ. Before he adverts, in a particular manner, to the changes that occur in carcinoma and the tissues that surround it, Dr. Carswell describes the chemical and anatomical characters of the deposite.

*Chemical Characters.* Unhappily, the analyses hitherto conducted may be said to display the chemical composition of organs or tissues affected with carcinoma, rather than that of the several varieties of the morbid production itself. The most recent statement is that published by Lobstein, in his "Traité d'Anatomie Pathologique."

Seventy-two grains of scirrhous breast were found to contain—

| | |
|---|---|
| Albumen | 2 grains. |
| Gelatine | 20 " |
| Fibrine | 20 " |
| Fluid fatty matter | 10 " |
| Water | 20 " |
| | 72 |

Seventy grains of the uterus in a state of scirrhus contained—

| | |
|---|---|
| Gelatine | 15 grains. |
| Fibrine | 10 " |
| Fatty matter | 10 " |
| Water | 35 " |
| | 70 |

According to the same author, it would seem that the chemical composition of cephaloma differs with the different periods of its development. In the first stage, it has been found to contain more gelantine than albumen, and, when in the second stage it has softened, to shew more albumen than gelatine. It requires no laboured criticism to demonstrate, that such chemical analyses are highly unsatisfactory, if not incorrect.

*Anatomical Characters.* The more obvious and gross anatomical characters have already been considered. Dr. Carswell proceeds to those of a more refined description. When a mass of carcinoma is carefully examined,

it is found to consist of various proportions of the following elements :— Bloodvessels—carcinomatous matter—and cellular, fibrous, and serous tissues.

The *bloodvessels* vary greatly in number, and sometimes considerably in bulk.

"They are rarely perceptible in any of the varieties of Scirrhoma ; are generally few in number in the first and second varieties of Cephaloma (the Organized and Mammary Sarcoma of Abernethy) : but in the Medullary Sarcoma they are so often numerous as to form the greater portion of the brain-like tumour in which they ramify. When these vessels are examined in Cephaloma, they are found to vary in diameter from the breadth of a hair to a line, and present that peculiarity of distribution always more or less conspicuous in newly-formed bloodvessels, that is to say, the ramifications of which they are composed communicate with a common trunk at its opposite extremities in the same manner as the hepatic and abdominal divisions of the vena portæ do with the trunk of this vessel. They are frequently varicose ; their walls are remarkably delicate ; and they have altogether much more a venous than arterial character. They appear to be formed apart from the vascular system of the surrounding tissues, as they can be seen to originate in small red points situated at the centre or at the circumference of the carcinomatous mass, which, at first, assume the appearance of striæ or slender streaks of blood, and afterwards acquire a cylindrical arrangement and ramiform distribution, thereby constituting what may be denominated the *proper circulation* of Cephaloma. The communication which exists between these vessels and those of the organ in which the cephalomatous substance is contained, is frequently very imperfect,—a circumstance which, together with the delicacy of their structure, renders them extremely liable to congestion and rupture. The most minute divisions of these vessels terminate by penicilated extremities in the carcinomatous matter, where they communicate with veins and arteries belonging to the affected organ. The latter vessels, which may be said to form the *collateral circulation* of Cephaloma, are seldom so conspicuous as the former, but there are cases in which they appear to constitute the greater part of the vascular structure of the disease. They proceed in a radiating direction from the pedunculated attachment of a tumour, for example, or arise along its circumference in the cellular tissue which separates it from the neighbouring parts. It is by means of these vessels that the materials required for the nutrition and growth of such tumours are supplied ; and, as we shall see afterwards, the partial or even the complete destruction of these and other tumours similarly situated, is occasioned by causes which interrupt this their collateral circulation.

The bloodvessels which are seen in Scirrhoma appear to be no other than branches of those which belong to the neighbouring tissues, and which have become enclosed within the substance of which the several varieties of this species of Carcinoma are composed."

This account of the bloodvessels, if strictly accurate, is very good.

Of the *carcinomatous* matter we need scarcely speak.

The *cellular tissue* is frequently small in quantity, and sometimes so fine, as not to be perceptible till after the carcinomatous matter has been separated by pressure and by maceration. It serves the same purpose as the cellular tissue of parenchymatous organs.

The *fibrous tissue* is seldom met with. The *serous tissue* is frequently present, and may form a capsule to the carcinoma, or give rise to cysts of various sizes, containing various fluids.

*Physiological Characters of Carcinoma.* Dr. Carswell remarks, that the vascular organization of the mass is a subject of great importance. On the actual condition of the circulation in the tumour, depends the variety of tint that it displays, and the disposition to bleed that it evinces. If obstruction of the collateral circulation occurs, the congestion that ensues may give rise to internal or external hæmorrhage, or even to the death and sloughing of the mass. The frequency of internal hæmorrhage is attested by the collections of extravasated blood observed in medullary tumours. External hæmorrhage is constantly witnessed, when the tumour protrudes from the surface, and after ulceration of the integument has taken place. The whole of a carcinomatous tumour will sometimes slough away: and although this may be viewed as a rare occurrence, partial mortification is far from uncommon. When the former and less frequent event has been remarked, delusive expectations have been felt that a natural cure was effected. Dr. Carswell states that this general sloughing of the morbid growth has sometimes resulted from the following circumstance. The tumor originally formed beneath the fascia has penetrated through it by a narrow opening, and afterwards increased with great rapidity when released from the pressure that confined it. But the narrow aperture remaining, the isthmus of the tumour has been subject to constriction, and the vascular supply has proved inadequate to the support of the external mass.

Dr. Carswell next considers the process of softening, which he seems to attribute to irritation, congestion, aud modification of nutrition. We need scarcely say that this array of medicated terms explains nothing more than that softening occurs. The immediate cause of this effect is involved in the obscurity that shrouds all ultimate facts, and men of a philosophical character will hardly attempt to conceal their ignorance beneath the jargon of a technical phraseology. The efficient cause we have said is obscure—indeed it is totally unknown. But some concomitants occur which are readily detected by the powers of our senses. At the time that the softening is witnessed, the tumour has usually attained some size, and a greater activity is noticed in the vascular organization of the part. In the tubera of the liver, the softening is first effected in the centre, and congested and ramifying vessels are seen there, whilst little appearance of vascular action is displayed at the circumference. A little consideration informs us that the central portion was the original deposite, and has, consequently, existed for the longest time. The healthy tissues of the living body have a long, but a definite period of existence. The morbid growths run a shorter course, but seem to be subjected to a similar law. They display in a rapid series their phases of increase, maturation, and decay, and the latter is effected by the destructive processes of sloughing and of ulceration. A reflection of this nature may serve to diminish our surprise at the course of carcinoma, but the sensible reader will immediately perceive that, though it may tend to account for the *why*, it affords us no insight into the *how*.

The everted edges of the cancerous sore are ingeniously accounted for by Dr. Carswell. He remarks that this their peculiarity of form is produced by the subsequent development of the carcinomatous substance situated beneath them, which, being entirely freed from pressure all round their internal margin, necessarily projects forwards, as it grows, towards the centre of the tumour hollowed out by the softening and sloughing process, and, con-

sequently, carries them gradually upwards and backwards. They acquire, at the same time a great accession of bulk, and form a rounded undulating border, beneath which the skin is found doubled upon itself, encircling the carcinomatous excavation.

Nerves have never been detected as a new formation in any of the varieties of carcinoma. But the nervous tissue may originate the malady, in common with all the other textures of the body. We lately witnessed at St. George's Hospital a medullary tumour, decidedly originating in one of the nerves of the arm, we believe the external cutaneous. The nerve entered the tumour at its upper end, and again emerged at its lower. In the section of the tumour, no appearance of the nerve displayed itself.

Dr. Carswell considers the development of the subcutaneous venous system, observed in carcinomatous tumors, situated immediately beneath the integuments, as resulting merely from mechanical obstruction to subcutaneous circulation.

We have now presented the substance of the letter-press of this fasciculus. We have found in it less to criticize than in either of the former, and we think that we observe in Dr. Carswell a more rigorous caution in the admission of what is not strictly induction. There is no excuse for theoretical disquisition in a branch of science so precise as morbid anatomy should be. Where certainty ends, the morbid anatomist should be cautious in proceeding.

The fasciculus before us contains four plates, distinguished for their beauty, and not deficient in exactness. As a work of art, the delineations of Cruveilhier and of Lobstein sink into daubs by its side, and look like the attempt of a pot-house sign to rival a head of Titian or Correggio.

In the first plate are represented the several varieties of scirrhoma—scirrhus, pancreatic sarcoma, lardaceous tissue, and the gelatiniform cancer. The second plate is devoted to the delineation of cephaloma, and comprises the common vascular or organized sarcoma, medullary sarcoma, and fungus hæmatodes. The third plate represents the seat, and some of the more remarkable forms of carcinoma; and the fourth contains examples of the malady as witnessed in the bones.

We cannot conclude without cordially recommending the work to our readers, to the lovers of science, and the patrons of art.

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III. The two fasciculi of the work of Cruveilhier are devoted to the elucidation of the epidemic cholera. It might seem to many, that the publications on this subject already in existence were more than sufficient to satisfy the world, that the labours and the ingenuity of medical observers had been already expended in vain. But the objects and the character of these fasciculi differ, in every essential particular, from those of the monographs that fill and darken the literary sky. *They* are chiefly occupied with the observation of symptoms, the results of empirical experiments with remedies, and with keen discussions on the question of contagion. The morbid anatomy of this singular disease has been slightly and unsatisfactorily investigated, and that approximation to exactness which constitutes the basis of the treatment of other maladies, is defective in the instances of this very serious one.

Perhaps it may be found that the high tone adopted by Governments and their agents, in asserting the virulent contagiousness of cholera, was unfa-

vourable to a calm and scientific enquiry. The reason of mankind resents such insults; and though subjects may be forced by power to obey, they cannot be compelled to believe. At the present period, pretensions to the right of dictating opinion are particularly ill-timed, and the efforts of legislative and corporate institutions to thrust their views on the body of society have been met by a re-action, perhaps of too violent a character, and by opposition, in which moderation and philosophic truth have been sacrificed at the altar of excited feelings.

The edge of dispute has been blunted, and the acrimony of party has been softened by time, if it has not been mildly subdued by experience. We are now in a condition more adapted to examine closely into facts, and to form unbiassed conclusions. But the swell of the tempest is still upon us, and the minds of the profession are not yet recovered from the intoxicating influence of passion and of prejudice. In the recent works that have been published upon cholera, and in public discussions that have occupied attention, the cautious observer may detect a disposition to extreme opinions, a readiness to indulge in extraordinary hypothesis, and an unphilosophic leaning to empiricism, which evince that the ordinary methods of inquiry are not universally restored.

The work of Cruveilhier to which we now proceed, is eminently calculated to improve our understanding of the malady. It consists of details of individual cases, and of obvious deductions from specific facts. The symptoms during life, and the morbid changes detected in the corpse, are carefully collated, and an accurate history of the structural alterations observed from the earliest to the latest fatal period is thus presented to the reader. This mode of investigation, advantageous as it has proved in all other diseases, is almost exclusively adopted by Cruveilhier in this.

Our author remarks that the similarity of phenomena between the cholera that appeared in Hindostan and that which is now epidemic in Europe, is amply sufficient to establish their identity. He also observes, that the same kind of evidence proves a similar identity between this disease and that which is described in the writings of Hippocrates—that which ravaged Europe in 1534—the epidemic cholera of 1669 and 1676, delineated by Sydenham. He concludes that the sporadic autumnal cholera only differs from the epidemic, as sporadic sore throat differs from the epidemic angina. This unpalatable thrust at the exclusive doctrines of some eminent individuals, may possibly incline them to attach less importance to the facts which he adduces. For such is the constitution of our minds, that we readily credit the statements of a supporter, and entertain an involuntary scepticism towards those of an opponent.

M. Cruveilhier considers the disease under three varieties, to which he seems inclined to append a fourth. 1. Dejections of a choleric character and slight cholera—2. Cholera of a medium degree of severity—3. Severe cholera, with asphyxia or without it. The fourth division includes those cases in which the epidemic influence was less distinctly displayed, but in which it appeared to be exerted.

The first fasciculus of those before us is exclusively occupied with the symptoms of these varieties, and with cases illustrative of their features and their treatment. However interesting these may appear, our object is the

morbid anatomy of cholera, and we consequently pass them by. The second fasciculus is chiefly devoted to this part of the subject.

M. Cruveilhier commences what he terms the anatomy and pathological physiology of cholera with an observation so sensible, that we cannot omit it. He remarks that the cases he has given are sufficient to decide, that cholera is a disease which differs from all others, and which demands a separate place in our nosologies. There cannot be a question that this truth has been neglected, and probably much of the difficulty, certainly much of the dispute, concerning the nature and the propagation of the malady, has arisen from the inconsiderate employment of the laws of other diseases to explain the phenomena of this.

The first consideration that occupies our author in treating of the lesions of cholera, is the state of the exterior of the body.

If the patient dies during the period of blueness, the colour of the dead differs little from that of the living corpse. It has been said that the resemblance has occasioned some melancholy errors. The muscles maintain a condition of rigidity comparable to that in the bodies of those who have suffered execution. But extraordinary contractions are seldom observed. Once M. Cruveilhier remarked in a patient, who had died during violent cramps, that the fingers remained widely separated from each other, and the upper and lower extremities were semi-flexed. The coldness of the skin is less intense in the corpse than in the living body. Our author imagines that this is, in great measure, due to the absence of the clammy sweat that moistens the surface during the latter stage of the disease. In several subjects, the temperature of the trunk was as great at the end of eighteen hours as it had been during the period of asphyxia. The putrefactive process is slow, as occurs in subjects exhausted of blood. But the decomposition of the alimentary canal is extremely rapid, as it is in all cases of considerable sanguineous congestion of those organs.

### STATE OF THE DIGESTIVE TUBE IN CHOLERA.

The mucous membrane of the mouth, the pharynx, and œsophagus presents a slightly violet colour. The follicular glands of the œsophagus are enlarged.

The free surface of the peritoneum is more dry than natural, and the fluid secreted is remarkably viscous and adhesive. In a number of instances, the external surface of the stomach and intestines presents a violet colour. The peritoneum is frequently the seat of the punctuated injection, as in peritonitis; the sero-purulent effusion alone is wanting. A cholera patient, at the Hôtel Dieu, was affected with real peritoneal inflammation.

Our author has often seen the stomach contracted on itself, and the great cul-de-sac completely effaced. In other instances, the contraction was confined to the pyloric portion. In others, the organ had its usual volume. The mucous membrane of the stomach has appeared to our author less frequently and less severely affected than that of the intestines. Often it presented a natural state. In some cases the follicles were greatly enlarged, in the neighbourhood of the pylorus, in that of the œsophagus, or even throughout the extent of the organ. The membrane was sometimes pale—at other times it offered a rosy tint and an uniform injection. In some

individuals the redness was punctuated, disposed in patches or in bands, along the free edge of the longitudinal folds. Sometimes circumscribed ecchymoses were discovered. Sometimes the stomach presented the most unequivocal traces of acute inflammation, traces most frequently observed in those who had died in the secondary stages of the malady.

The small intestine was sometimes contracted for a great extent; at others it was narrowed at regular distances. M. Cruveilhier has noticed invagination without a trace of any inflammation.

In a number of those who sank in the blue stage, the intestines were found filled with the choleric liquid, and that where the dejections had not been profuse. When the patient died at a period subsequent to that of re-action, liquids were not discovered, but in lieu of them a yellowish pultaceous matter, which may not be improperly compared with meconium.

The mucous membrane of the small intestine presented very variable characters. Enlargement of the follicles was next to constant. Sometimes the solitary glandules were exclusively affected, at others the aggregated only were implicated. Both orders of glandules seldom presented marks of inflammation. In one case, and in that alone, a considerable number were in a gangrenous condition.

The colour of the mucous membrane presented every possible variety of tint, from that of the rose to a reddish-black. The discoloration was very different from that occasioned by venous congestion. It was seldom uniform; often were found points and patches of ecchymosis. When a portion of intestine was viewed against the light upon a plate of glass, the vascular arborization was as delicate and as complete as it was possible to conceive.

The traces of sanguineous congestion were almost always most pronounced in the neighbourhood of the ileo-cæcal valve, and progressively diminished, as the distance from this point increased. But M. Cruveilhier has arrived at the conclusion that the large intestine is that which presents the most constant and most considerable cadaveric alterations.

The great intestine varied extremely in volume, being sometimes filled and distended by liquids, sometimes contracted at regular distances. In this, at the early period, the rice-water evacuations were chiefly discovered. After re-action had ensued a yellowish or greenish pulp, resembling meconium, was commonly observed.

The mucous membrane displayed many varieties of coloration. Sometimes the tint was natural; sometimes that of the hortensia; sometimes the membrane was injected in an arborescent manner, and displayed points of ecchymosis, large black patches, occasioned by effusion of blood into the cellular tissue external to the mucous, or into the mucous itself. In only one instance did M. Cruveilhier discover a really gangrenous condition of the membrane.

The follicles were frequently much enlarged, especially in the neighbourhood of the ileo-cæcal valve. In a number of cases the follicle was surrounded by a sort of red areola, produced by penicillated injection.

The spleen and the liver offered little worthy of remark. The bladder was contracted in those who died in the period of asphyxia, but contained some urine in those who sank in the stage of re-action.

In alluding to the condition of the heart and of the blood, a condition with which our readers must be well acquainted, the author indulges in an

observation on the chemical examinations of the latter, which we fear must be owned to be just. Chemistry, says he, has been vainly invoked, and the different results at which chemists have arrived, admit of a comparison with those which have been obtained by an analysis of atmospheric air, instituted to discover the nature of miasma. The accurate researches of the candid Dr. Stevens will probably occur to the reader's mind. He may possibly reflect on the loud pretensions by which others, as well as that admirable chemist and successful physician, succeeded in attracting the attention of the public, and the admiration of the more credulous of the profession.

The cerebrum and cerebullum were injected with blood, as they are in a state of asphyxia. The pia mater was injected, and sometimes slight ecchymoses were observed. The nervous system of organic life has appeared to M. Cruveilhier perfectly natural, and he feels a difficulty in conceiving how M. Delpech could discover in the semilunar ganglia any marks of inflammation.

The foregoing is an abridged enumeration of the facts disclosed on the examination of the dead. A resumé, or a series of inductive propositions, is appended by the author, and is worthy of attention.

1o. The epidemic cholera cannot be ranked amongst those diseases which entirely admit of explanation by alterations of structure. It is true that in some cases decisive alterations are discovered, but in others they are trifling, dubious, or absent.

2do. It is no less clear that the most remarkable anatomical lesions have their seat in the alimentary canal, and more particularly in the great intestine and the inferior part of the small. These lesions sometimes consist in the development of the solitary and aggregated follicles—sometimes in discoloration, more or less decided—injections—ecchymoses—and sometimes in gangrene of the mucous membrane. But none of these lesions can be looked upon as constant, their existence cannot be determined à priori, and frequently their intensity is inversely in proportion to the symptoms.

3tio. The presence of the cholera fluid in the intestinal canal is the only appearance that M. Cruveilhier can denominate specific. It is constantly observed in those who have sunk in the period of asphyxia.

4to. The blood presents an almost invariable and peculiar character in cholera asphyxia; and the apparatuses of circulation and of respiration presented the characters noticed in asphyxia.

Our author next considers the various explanations or theories of the disease that have been offered to the public. The nature and the limits of this article forbid us to enter on these parts of the subject. We shall venture to indulge in but a few remarks.

When we calmly contemplate the cases presented to our view, the well informed, cautious, and practical physician very readily perceives, that some must be fatal under any plan of treatment, and that many will do well under any kind of remedy. The ignorant, the designing, or the enthusiastic, select the latter class as the subjects of experiment and the evidence of success.

A careful consideration of the facts disclosed by the dissection of the dead, confirms, if it tends to moderate, our knowledge. We perceive that in many instances no lesion is discovered which will fairly explain the severity of symptoms. But we also remark that in a large proportion alterations are

detected, that these become more constant in the ratio of the duration of the case, and that if they are not exclusively inflammatory in their character, they demonstrate at all events sanguineous determinations. Of the frequent occurrence and continual risk of such determinations, the practitioner should be aware, and the facts of morbid anatomy will lead him to endeavour to prevent and to remove them.

When symptoms are considered they are found to correspond, in the majority of instances, with the lesions which are noticed. During the asphyxia period, the gravity of the symptoms might lead us to suspect, what the scalpel of the dissector has enabled us to ascertain—that no prominent, no individual alterations, are sufficient to explain them. Cholera, in this period, resembles those rapid and malignant fevers, the cause of which may exist in the fluids, or in the nervous system, but which has hitherto baffled inquiry, and defied the treatment of reason or of accident. But if medicine, or the powers of the patient's constitution, have enabled him to rally, another train of symptoms is established, more consistent in their characters with those of common occurrence, attended with some marks of inflammatory action, and connected with the lesions to which we have adverted.

When we pass in review the multifarious grades of this singular disease—when we look at the important difference in symptoms, and the marked corresponding difference in lesions, we are forced, however unwillingly, to the conclusion, that one plan of treatment cannot suit all. In the slighter forms, diarrhœa may constitute the only symptom—in the most severe, there is positive asphyxia—in the secondary stages, there is inflammation of the mucous membrane. He who can conceive that this or that remedy is adapted to the whole, must have a very limited experience, or a large capacity of belief.

We do not feel inclined to introduce our own opinions. We may venture, however, to observe, that we have found little difficulty in arresting the cholera diarrhœa by astringents, combined with hydrargyrus c̄ creta and Dover's powder, or calomel and opium, to improve and maintain the secretions. Some practitioners commence with aperient remedies, we have found it better to conclude with them. We think that it is best to check the diarrhœa, and then to restore the functions and secretions.

We cannot but suspect that stimulants present the best chances of success in severe collapse. But the object of the practitioner should be not to push them too far, and to watch for the moment when prudence may allow him to withdraw them. The vomiting will sometimes render it impossible to administer stimulating remedies, indeed to administer any by the mouth. In such cases we have found it better to withhold all medicine, and allow the patient to consult his inclination in drinking of warm or of iced diluents. But often it is possible and very useful to exhibit those remedies or even food by the rectum, which the stomach refuses to receive. The experiments of Dupuytren have demonstrated the powers of opiate enemata. We have frequently administered injections of liquid nourishment with wine, or brandy, and with opium, and have found them decidedly useful in cases of cholera of the worst description.

So soon as the secondary fever is appearing, the practitioner should cautiously endeavour to ascertain if local determinations are occurring. If tenderness exists in the abdomen, or pain or uneasiness in the head, leeches

or cupping should be used with discrimination. To this point we would direct particular attention. The secondary fever of cholera differs from the ordinary typhus, only in the inferior powers of the patient, and the greater incapability of supporting reduction. Like typhus, then, it should be treated —by calomel, by mild aperients, by local bleeding or blistering to subdue particular determinations.

Such is a slight sketch of the principles of treatment which we have found most useful. The items of the plan would be out of place here, and perhaps they will suggest themselves to all intelligent practitioners. But setting opinions aside, we intreat the profession to investigate this as they would other maladies; to observe the symptoms of each case; to study the alterations of structure, and to connect the two with each other and with the remedies, and to form a rational conception of the disease, if they cannot discover an universally successful method of treatment. The advantages obtained in this deliberate manner are always certain, if they are not brilliant.

## IX.

**A MEMOIR ON THE ADVANTAGES AND PRACTICABILITY OF DIVIDING THE STRICTURE IN STRANGULATED HERNIA ON THE OUTSIDE OF THE SAC, WITH CASES AND DRAWINGS.** By *C. Aston Key*, Senior Surgeon to Guy's Hospital, &c. &c. 8vo. pp. 161, London, 1833.

MR. KEY is favourably known to the profession, as the author of a work upon lithotomy, as a patron of the straight staff, and as a dexterous surgeon. He is now come forward to advocate a method of operating for strangulated hernia, which though little known, has been less practised, and scarcely at all recommended.

It is generally considered incumbent on those who object to established methods of practice, and propose innovations on ordinary usages, to display the defects of that which they wish to supersede, and contrast with those defects the merits and advantages of the plan they advocate. We are therefore not surprised to observe the first Chapter in the present work is devoted to observations on the danger attending the common operation for strangulated hernia. The critic has frequently occasion to remark that the natural sentiment of affection for our offspring is not strictly limited to social life, but it is felt in the literary and scientific world. That feeling, when carried to a certain and not an uncommon extent, will lead us to depreciate the child of another, in the ratio in which we esteem our own. Hence it is that many who advance new doctrines are found to mete out an inadequate measure of justice to those which they desire to weaken or to overthrow. It will probably appear that Mr. Key may be absolved from this ordinary fault. Yet the opening of the memoir might lead a hasty or censorious individual to surmise, that a tincture of the error is apparent.

"The fatality," says Mr. Key, "that often attends the usual mode of operating for

strangulated hernia must have been a subject of deep consideration and regret to every surgeon who bestows much thought on the results of his practice, and who endeavours to make his art subservient to its proper object,—the prevention of suffering and the preservation of life. Oftentimes must he have deplored the necessity of having recourse to an operation that, under some circumstances, holds out so slender a chance of success; and not unfrequently has his duty compelled him to perform it with the conviction that, while it afforded the only hope of relieving the intestine from impending gangrene, it would almost certainly lead to the destruction of the patient.

That this is not an exaggerated feeling of apprehension as to the dangers attending the operation of strangulated hernia, the records of large hospitals and the memoranda of private practice, if candidly stated, will abundantly testify; and it cannot but strike the reader of the periodical publications, that they alone furnish sufficient evidence of its mortality, in the numerous *post-mortem* examinations, compared with the number of successful cases detailed in these works." 2.

The candid surgeon will be tempted to inquire, whether the operation for strangulated hernia does really deserve so unfavourable a character. We apprehend that the general opinion is somewhat adverse to that of Mr. Key. His accusation appears to be based on two leading circumstances—first, that the unsuccessful operations are numerous, at least if we may judge by the periodical publications; and, secondly, that the operation is serious in itself, and materially adds to the dangers of the patient.

It may be stated in reply to the first observation, that the nature of modern periodical literature would rather tend to the publishing of fatal than of fortunate results. The weekly journals are chiefly fed with the cases occurring in the hospitals. The patients taken to those institutions, are necessarily such as present the most unfavourable circumstances to the operator. Urgent and protracted efforts have usually been made to reduce the tumor by the taxis, and the operation has been commonly delayed to a very prejudicial extent. We may add that the worst of the hospital cases are commonly selected for the public, the reporters considering that the majority of those which are successful present no peculiar features of interest.

It may safely be questioned if the second branch of Mr. Key's accusation, is consistent with the experience of the mass of surgeons. We have heard a very eminent operator declare, that he believed the operation to be scarcely attended in itself with danger. So widely has a similar opinion prevailed, that the knife is now resorted to, almost universally, at a much earlier period than was formerly selected. The example of French surgeons has frequently been quoted as illustrative of the safety of an early operation. If necessity or timidity conspire to protract the employment of this decisive measure, it may then be allowed that the chance of recovery from the common operation is alarmingly diminished. But reason instructs us that, under such circumstances, the danger of the particular method is not magnified, but the chance of benefit from any is diminished.

Whether we are inclined to allow or to dispute the estimate of Mr. Key, it must be owned that the argument resolves itself to this—is the old plan or the new attended with *least* risk? The most enthusiastic advocates of the former must admit, that often it is not successful, and that sometimes it may not be safe. The question becomes one of comparative value, and to judge of this we must listen to the pleadings. The third, fourth, and fifth divisions of the volume may be said to contain the feelings and the reasonings

of Mr. Key upon the subject, and we turn to them at once, without stopping to notice an able and interesting historical sketch of what we may improperly denominate the new operation.

We proceed to consider Mr. Key's enumeration of the advantages of the reduction of the hernia, by division of the stricture without opening the sac. These advantages may be enumerated in the following order.

1. "A prominent character of the operation, and one that raises it above many of the objections that have been brought against it, is that should the attempt to execute it fail, either from want of dexterity on the part of the operator, or from any peculiar difficulty in the case, the operation can be completed in the ordinary way, by laying the sac open. A surgeon may possibly find great and insuperable difficulty in dividing the stricture externally to the sac; or, having divided the stricture, he may be unable, by the best directed efforts, to return the contents of the hernial tumour: in such a case, he has not brought himself into any dilemma by his unsuccessful attempt; the operation may proceed, as if it had not been made; and neither patient nor surgeon are in a worse position than if the sac had been opened in the first instance, without the attempt to preserve it entire. It is no slight recommendation of the operation, that its failure involves the surgeon in no embarrassment, but leaves him at liberty to adopt the old mode of operation." 48.

2. There is a modification that the surgeon may resort to. He may make an opening in the sac below the stricture, introduce a director, convey this under the stricture, and divide it. Mr. Key observes that no objection can be urged to the proceeding in a case of strangulated recent enterocele. But he likewise remarks, that the only instances in which it can be decidedly advantageous or necessary, are those in which there is an unusual degree of tightness in the stricture at the inner ring in inguinal hernia, rendering it impossible to divide the tendon without wounding the neck of the sac; or, a thickening of the neck of the sac in the femoral hernia.

3. Sir Astley Cooper's authority is quoted, and it seems very favourable to the proposal of Mr. Key. The former excellent and able surgeon expresses his conviction, that the operation will be found, if performed early, to be free from danger, and not be accompanied with difficulty. He observes that by this means we avoid the danger of wounding the bowel, and that if the epigastric artery should be cut, it cannot bleed into the abdominal cavity. He recommends the operation in herniæ of great size, because the viscera will not be exposed to being handled, and can subsequently be more readily retained in the abdomen. He advises that the sac should not be opened in large irreducible herniæ, as the separation of extensive adhesions would expose the intestine to the great risk of inflammation.

4. "I need not again urge the main benefit derived from the external division of the stricture in the non-exposure of the patient to those causes of inflammation, to which the ordinary operation subjects him, and, as experience frequently proves, with most unhappy consequences. The exposure of a bowel in a state of incipient or active inflammation, the handling it in this susceptible state, the incision made into a peritoneal bag already disposed to, if not in an actual state of, inflammation, are, as every surgeon will admit, and as his forcible efforts to reduce the hernia without the knife prove that he feels them to be, dangers of no ordinary magnitude to a patient labouring under a strangulated intestine. I do not feel that I have exaggerated the risk of inflammation; for frequently enteritis comes on, when at the time of the operation the bowel appears to be healthy, and the

abdomen free from tenderness; and when general inflammation precedes the operation, the release of the intestine by the knife rarely succeeds in checking it." 51.

5. Mr. Key alludes to a circumstance that sometimes occurs. The patient appears to do well after the operation, but in two or three days he begins to sink, and after several more he dies. The cause of death is found in the dark colour and lacerable condition of the strangulated portion of bowel, and the vascular state of the surrounding parts. Such a case seems to mark the enfeebled powers of the constitution, and Mr. Key conceives that the exposure of the bowel that resists inflammation and destruction so faintly, can scarcely be considered as other than injurious.

6. In cases, says Mr. Key, in which great depression of the powers are observed to precede the operation, death sometimes rapidly takes place without any other obvious cause than the exposure of the bowel. The condition of the patient is often found to be manifestly worse after the operation, and stimulants are obliged to be plentifully administered, in order to sustain the sinking powers of life. This may happen without inflammation of the abdominal cavity, or gangrene of the bowel; and is attributable solely to the depressing effect of the operation. The pulse, which before the operation was feeble, becomes fluttering, and scarcely perceptible; the countenance, which was anxious, now bespeaks the approach of death; the skin is covered with a clammy moisture, and the whole frame is seized with a restlessness that gradually ends in the calmness of dissolution." 54.

7. Mr. Key employs as an analogical argument, the injurious effects that are known to succeed to contused wounds. He compares the condition of the exposed intestine to that of the tissues beneath the skin, submitted to the pernicious influence of the atmosphere, after a contusion and wound of the integument. He pushes this argument to a point which could only be perfectly justified, by a long experience in the new operation, an experience which it has not hitherto received. He observes, that if the contusion be not accompanied by a breach of the surface, no harm is anticipated; and just so if the bruised contents of a hernia are returned without a wound of the peritoneal sac, and consequent exposure, inflammation, if it does come on, seldom proves severe, and still more rarely fatal.

8. An eighth consideration is founded on the smaller liability to the production of hæmorrhage, presented by the new than the common operation. Independent of the circumstance, that, the sac being unopened, the blood, if it flows, will not enter the cavity of the abdomen, the vessels are much less exposed to danger. The director, says Mr. Key, in both inguinal and femoral hernia is so placed, that the knife is carried before the vessels; and thus the epigastric artery, and the obturator, when it crosses the femoral sac, will be more likely to escape. The cremaster branch of the epigastric, which, in one case mentioned by Mr. Lawrence, furnished a very copious bleeding, is out of the reach of the knife when the latter is passed on the outside of the sac.

9. The intestine is likewise placed beyond the reach of danger from the knife. It is occasionally wounded in the ordinary operation.

After the division of the stricture it occasionally happens, that in drawing down a further portion of the bowel, that part of it formerly constricted gives way. This occurrence is more frequent, for an obvious reason, in

femoral hernia than in inguinal. Such an accident cannot attend the division of the stricture on the outside of the sac.

10. "Small collections of pus at the mouth of the sac, attended with intestinal irritation and peritoneal inflammation, are occasionally found, on inspection, after the operation of opening the sac. The following case presented this appearance, together with a change in the condition of the mucous follicles of the intestine. I will not aver that this will not happen if the sac be left entire; but it is probable that the latter mode of proceeding would much diminish the chance of suppuration. The intestine was much chilled before it was returned: this frequent and fruitful source of subsequent reaction and inflammation would be wholly avoided." 70.

We need not relate the case.

The foregoing enumeration comprises the advantages attributed by Mr. Key to the operation he proposes. We have placed them before the reader in a more methodic form than that which they wear in their native volume. A critical review would readily demonstrate, that some of the arguments employed by Mr. Key are possessed of more force than others, and perhaps it might be shewn, that a few are not only inconclusive, but hostile to the cause for whose support they are adduced. It is doubtful whether those which we have numbered as the fifth, the ninth, and the tenth, are really calculated to furnish the assistance our able author would appear to expect from them.

The candour of Mr. Key will spare us the ungrateful and the unsatifactory office of urging objections against the operation. They are fairly stated by himself, and a patient analysis will readily oppose them to the list of recommendations and advantages to which we were just referring. Petit has put on record some of the objections, accompanied with the antidote of his own reply. We will endeavour to select and methodize these objections, in the manner we have adopted in considering the favourable side of the question.

1. It is urged that the new operation is difficult. To this M. Petit replies, that the usefulness and practicability are the points to be decided. He also denies that great difficulty exists, when a properly-adapted director is chosen.

2. It is argued that the fluids shut in the sac, being returned into the abdomen, may irritate and inflame the peritoneum. Cheselden observes, in his Anatomy, that he found above two pounds of fetid matter in a hernial sac. But the natural and obvious rejoinder of M. Petit is conclusive. We always endeavour to reduce a hernia by the taxis, without permitting a dread of the irritating quality of the fluid to prevent us. Experience proves that the fear and the objection are equally idle.

3. Heister remarks that the prolapsed omentum or intestine is sometimes in a state of suppuration, which cannot be discovered if the sac remains entire.

4. The same author observes, that the omitting to open the sac may easily occasion a return of the disorder. It is greatly to be doubted if such a division does really tend to prevent that effect.

5. The operation is not adapted to those inguinal ruptures in which the peritoneum is already lacerated. The advocate may admit this scholastic objection, without any material disadvantage to his case.

6. Richter observes, that the operation is possessed of no advantage above

the ordinary method, and that the principal argument in favor of it, rests on the *imaginary* danger of opening the hernial sac. He remarks that it is immaterial whether the latter be divided or not, and that a radical cure is less likely to follow if no division has been made.

7. When the stricture is composed of the neck of the sac, the new operation would be out of the question. Mr. Key believes such a source of constriction to be of very rare occurrence.

8. But perhaps the most important reasonings are founded on the existence of adhesions in the sac, and the gangrenous condition occasionally shewn by the intestine. And first of the presence of adhesions.

Heister has placed this among his objections—that adhesions of the intestine or omentum may occur, which cannot be separated without opening the sac. Richter, on the other hand, observes, that the operation is really indicated, when the intestines adhere to each other and to the sac, because the latter can scarcely be opened without the risk of injuring its contents. Here, where he allows an indication, he denies the practicability of the plan, because the hernia cannot be reduced without the prior exposure of the intestines, and destruction of the adhesions that impede their functions.

Mr. Key replies at some length to this objection.

"Adhesion of the intestine may possibly constitute a case that will not admit of it being returned without opening the sac. Soon after an intestine becomes incarcerated and its circulation impeded, effusion of fluid takes place, preventing the bowel coming in contact with the parietes of the sac. If, however, inflammation takes place in the peritoneal covering of the bowel soon after its descent, the effusion is of a plastic kind, and adhesion ensues batween the opposed surfaces. The presence of fluid in the sac will in most cases be sufficient to determine the free condition of the bowel, or the slight nature of the adhesion; while its absence, especially if the tumour be hard and tender to the touch, may lead to the suspicion (not to the certainty) of adhesion having taken place. When, under such circumstances, the sac is opened and the bowel exposed, a very slight degree of force is required to separate the adherent intestine. It is true that this separation is not effected by the pressure which the tumour undergoes in the use of the taxis; but if the stricture be divided, and the intestine be free to pass into the abdomen, the adhesions, consisting of a thin pellicle of fibrine of perhaps a few hours' formation, will probably give way as soon as pressure is made upon the tumour. This, however, is only opinion; experience alone can decide it. But should the intestine resist the attempt of the surgeon to disengage it, he has then the alternative of opening the sac and concluding the operation in the usual manner." 94.

Pursuing the train of reasoning contained in this quotation, Mr. Key concludes that recent and slight adhesions of the intestine are not matters of such moment as lightly to intimidate the surgeon. He believes that many of the cases, in which the fatal result has by some been attributed to the presence of such adhesions, have really been instances of death from peritoneal inflammation, arising, perhaps, from the exposure of the intestine. He allows that such adhesions as confine the gut at a very acute angle, must check the progress of its fæcal contents, but contends that such cases are far from common. He admits that adhesion of the bowel at the orifice of the sac would require the exposure of its contents, in order to free their baneful attachment. He seems to conclude, at all events he hints, that the gut could not be reduced in such cases without difficulty, and wherever an

unusual amount is experienced, he recommends the sac to be instantly opened, that the operator may determine the nature of the resistance.

"In irreducible intestinal herniæ a difference of opinion may exist, whether it would be advisable to remove the cause of obstruction without opening the sac. When symptoms of strangulation come on in irreducible herniæ, they are found most commonly to depend upon the mechanical obstruction to the passage of the fæces, rather than to any actual strangulation of the vessels of the intestine; when the sac is opened and the bowel exposed, it does not present the usual venous hue of extreme congestion, but rather a florid colour, indicating an increased activity of circulation, or the first stage of inflammation. That any advantage can attend the opening of the sac, and the exposure of a bowel in this condition, appears to me very questionable. Whatever relief is to be afforded to the distressed bowel can as well be given by dividing the stricture on the outside of the sac, and thus enlarging the opening of communication with the abdomen. I believe that this mode of freeing the bowel from pressure, and the administration of a dose of calomel and opium to tranquilise for a time the action of the bowel, followed in a few hours by a mild purgative, would be sufficient to restore the function of the intestine and to remove the symptoms of obstruction. The opening of the sac, with a view of removing the adhesions, is an operation, to say the least, hazardous in its consequences, when the division of the adhesions can be effected, and oftentimes useless, as the intestine in old herniæ sometimes adheres so extensively to the parietes of the sac, that it is impossible to detach them without endangering the bowel; and the practice of returning the intestine with portions of the adherent sac, does not appear to possess any decided advantage, as the cut surface of the sac will, in all probability, contract fresh adhesions to the parts with which it may come in contact." 100.

Further on Mr. Key remarks:—

"When my attention was first directed to this subject an adherent omentum seemed to me likely to throw some difficulty in the way of reducing a portion of intestine, that might have descended into the sac and have become strangulated. The difficulty of applying direct pressure to a piece of intestine so circumstanced, and the possibility of it being entangled by the omentum, appeared to me rather to forbid the operation, and to require the sac to be opened. But the very first case in which I attempted to perform it, was an old irreducible umbilical hernia, in which a fold of intestine had recently descended; and to my surprise, instead of finding any difficulty in returning it, the edge of the tendon being divided, very slight pressure made on the sac immediately caused the bowel to return. And I believe that, in many of those cases in which the intestine is apparently entangled by the omentum, a slight division of the stricture would be sufficient to release the bowel and induce it to return; for although, when the sac is opened from the outside, the omentum may seem to entangle and to detain the bowel in the sac, yet in reality the channel from the abdomen by which the intestine has descended may be quite direct, and the pressure of the omentum on the intestine may be only apparent, and may cease as soon as the tendon is divided. The adhesion of the omentum to the neck of the sac will not add to the difficulty of dividing the stricture." 102.

In some cases, the operation has disclosed the omentum in such a condition, that its removal by the knife has been advised and practised. Mr. Key observes that, when the sac is left entire, a proceeding of this nature would probably be unnecessary, as well as impracticable.

9. It is allowed by all, that a gangrenous condition of the contents of the sac requires its division, and the free exposure of the parts. The aim of Mr. Key is, therefore, to discover some means of determining the existence

of this state. The ordinary symptoms we need not point out. They consist of the state of the tumour, and the general features of the case. Mr. Key has witnessed a case in which the gangrene of the gut was marked by a peculiarly fetid smell, perceptible during the progress of the operation. But, independently of the ordinary marks of gangrene, and this which he has once observed, Mr. Key offers no additional means of detecting this formidable state. The symptoms to which we have alluded are probably only observed when mortification *has* ensued. The formidable and not unfrequent class in which the intestine is *becoming* gangrenous, present no feature by which they can be with any certainty distinguished. This circumstance must exercise a considerable influence on the mind of the profession. When the surgeon returns the gut without opening the sac, he feels that, in many cases, he cannot be assured that it is not on the verge of sphacelus.

It occasionally happens that the intestine sloughs after it is replaced in the abdomen, and the fæces pass for a time through the wound. Were the sac unopened those fæces would probably collect in the cavity of the peritoneum, and materially aggravate the danger of the patient. Mr. Key anticipates that the non-exposure of the gut would tend so greatly to prevent this occurrence, that the balance of advantage would incline to the side of the operation. But the candid inquirer may perhaps suspect that the benefit and prevention are only conjectural, and the risk positive and certain. Those who are convinced by the confidence of the reasoner may be more inclined to agree with Mr. Key, when they find him so satisfied with the justice of his expectation, as to declare, that the operation of leaving the sac entire appears to him peculiarly applicable to cases of this description. He considers that a full examination of the subject should diminish the apprehension of danger from a gangrenous state of the intestine.

10. This objection is brought forward by Mr. Key himself.

"From the difficulty which occasionally attends the return of a large mass of omentum, it is not improbable that the sac of an omental hernia will often require to be opened, when the descended portion is voluminous and the inguinal canal narrow. Even when the abdominal rings do not produce pressure sufficient to cause strangulation, it is often very difficult to return by the taxis a mass of incarcerated omentum after a descent of only a few hours. The return of an enterocele is readily effected from the regular and smooth surface of the intestine; but the lobular form and irregularity of the omentum require a more prolonged manipulation, and allow of it being reduced as it were only piecemeal: unless the rings are very wide, it does not slip up at once, and not unfrequently requires some days before the whole mass can be completely reduced. Some years ago I experienced so much difficulty in returning it after dividing the stricture, that I was obliged to open the sac. This case I have occasion to refer to when describing the operation for inguinal hernia. Should a portion of intestine have descended behind the omentum, the former might be returned, first, by making pressure on the back part of the swelling, and this would facilitate the return of the omentum. After the stricture is divided, the intestine would readily recede if pressure be made directly upon it, and more space would be afforded for the reduction of the omental mass." 119.

We believe we have offered a very candid analysis of the arguments for and against the operation, contained in the work of Mr. Key. Reviewing has been termed the ungentle craft; analysis may fairly be styled the unpleasant one. Those who are unused to literary composition, display, when

they pass from professional pursuits to publish their views or their experience, an unaptness in reasoning and a ruggedness in style, that render the function of critical digestion a work of pain and of difficulty. We have found some trouble in placing in connected order the reasons arranged in the preceding pages. Did we venture to indulge in the vanity of advice, we would hint to Mr. Key, that in a second edition of this valuable work, he might condescend to imitate the critic in the homely though useful virtue of precision.

It fortunately does not fall to the province of the analytical reviewer to balance conflicting evidence, and assume the power of pronouncing judgment. He acts as a public cook, and prepares in a palatable form, the viands which his patrons and employers taste.

Yet we think that we shall not exceed our duty, if we venture to display the essential points on which the controversy rests. The advocate of the new operation, objects to the old that it is fraught with danger, and that this essentially depends on the division of the sac and exposure of its contents to the air and to the gross manipulation of the surgeon. The supporter of the ordinary operation replies, that the opening of the sac does not contribute to aggravate the risk, and constitutes only an imaginary peril.* He observes that in many cases it is owned by all that the contents of the sac must be exposed—that it is frequently a matter of great difficulty to distinguish the circumstances that require the division of the sac—that intestine may be indiscreetly returned into the abdomen in a state approaching to gangrene, or bound in such a manner by adhesion to itself or the omentum, as not to be capable of exercising its function after its reduction—that if any mischief subsequently ensues, there is not that ready vent for the escape of pus, of fæces, or of slough, which exists when the sac has been divided—and finally that we are voluntarily acting in the dark, and depriving ourselves of an important criterion of the condition of the parts, and a valuable guide in our subsequent proceedings.

The intelligent reader will probably disregard the *number* of the arguments against the operation, and attach a just degree of importance to the general bearing of the reasoning for it. Yet we doubt if all surgeons will freely admit the danger of opening the hernial sac, and some perhaps will accuse Mr. Key of greatly over-rating it. We suspect that the non-division of the sac will never be very extensively practised, nor become the common mode of operation. A prejudice will always lurk in the mind in favour of ascertaining the condition of the gut or the omentum, and the operator who has proceeded as far as the sac, will in general believe that caution and prudence urge him to open it. At the same time the facts and the reasonings of Mr. Key must exercise an extensive and permanent influence, and in many cases the surgeon will be led by the presence of favourable circumstances, to perform the operation he advises. Such is the anticipation we would venture to indulge from a careful consideration of the question.

Six cases are related by our able author; two were attended with a fatal result. One of the more fortunate was an instance of severe umbilical

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* Richter, as quoted by Mr. Key.

hernia, and highly illustrative of the value of the operation. We will briefly notice two of the successful cases.

*Case* 1. Mrs. J. æt. 59, consulted Mr. Key for a femoral hernia, which he had some difficulty in reducing, and for which he recommended the employment of a truss. The advice was not adopted, but the hernia did not reappear. Two years after this, on the 17th December, 1832, he was summoned to attend her, in consequence of the tumour having descended in the water-closet. Mr. Key tried the taxis for twenty minutes unsuccessfully. Ice was then applied till the evening, and the taxis repeated, with no better result. Some Dover's powder was given her at bed-time, and in the morning a castor oil enema was ordered. In the course of the night she had vomited several times, and the abdomen was becoming more tender. The castor oil had not brought away any fæculent matter. Mr. Key had now recourse to the operation without any further delay.

"With the assistance of my dresser, Mr. Langley, I exposed by means of a crucial incision the fascia propria of the tumour, and, making an opening into it so as to expose the fatty investment of the sac, I endeavoured to pass the director towards the stricture; but, owing to the angle formed by the tumour with Poupart's ligament, I was obliged to divide the fascia more freely towards the neck of the sac, in order to reach the seat of stricture. The director was then passed without difficulty between the fatty covering of the sac and the outer layer of the fascia propria, and carried under the stricture. The blade of the bistoury was then passed along the groove, and the stricture divided in a direction towards the umbilicus. The intestine was immediately released from pressure; for, by applying a very moderate force to the tumour, the intestine immediately slipped up; and a small piece of omentum that remained, was readily returned by a little farther manipulation." 137.

The bowels were freely and spontaneously relieved after the operation. On the 22d there was a slight disposition to diarrhœa, and a blush of erysipelas appeared about the wound. This, however, subsided, the wound did well, and on the 8th of January a truss was applied.

*Case* 2. This was seen by Mr. Key in company with Mr. Désormeaux, of Pentonville. The commencement of the case is given in the words of Mr. D.

"Mrs. T., about fifty years of age, sent for me on Saturday, the 12th of January, on account of a femoral hernia, which she stated to have existed for several years, but which she had been able to keep up with a common truss. It had occasionally descended, in consequence of the truss not fitting her. In making some exertion, it suddenly came down this afternoon, but felt, as usual, when it happened to make its appearance, soft and free from pain. In a short time it became much harder and painful, producing a great sense of tightness across the belly, with nausea, which soon ended in vomiting. I saw her in the evening, and found her suffering great pain with the hardest hernia I had ever felt. The tumour seemed to be filled with a mass of hard indigested substances, which could be felt through the skin, the coverings being very thin. I attempted to reduce it by the taxis, which was steadily kept up for twenty minutes, and then she tried to reduce it in her usual way, but without success. It appeared to me impossible to reduce the tumour, without first kneading the solid contents of the bowel through the femoral ring, which, from the great solidity of the matter, appeared to me almost hopeless. I took from the

arm as much blood as brought on a fit of fainting, and then made a second attempt to reduce it. Conceiving that all measures would be useless while the contents could not be moved, I proposed having further advice." 139.

On the following morning Mr. Key examined the lady. The tumour was remarkably hard and very tender, about the size of a small orange, and accompanied with urgent symptoms. Mr. Key tried the taxis in vain, and then proceeded to the operation. The stricture was distinctly heard to give way, and the contents of the sac were immediately reduced as soon as pressure was attempted.

The sickness ceased, but the bowels were not opened till the evening, and that with the assistance of a draught containing the sulphate and the carbonate of magnesia. The night of the 14th was bad, and much pain in the abdomen, with a sense of tightness, were complained of on the following day. The pulse was 110. Leeches were applied and aperient draughts continued. In the evening she was ordered a dose of Dover's powder. The wound healed by the first intention, and on the 18th she was convalescent.

It only remains to notice Mr. Key's particular directions for operating on the three varieties of hernia. And first of that of the inguinal kind.

The following remarks on the method of operating are not undeserving of insertion; they do not admit of satisfactory abridgement.

"The extent, as well as the form of the incision through the integuments, may seem of minor importance, except as far as it tends to facilitate the after steps of the operation; yet it may be as well to disturb the subjacent cellular membrane as little as possible, as inflammation is less likely to follow, and to assume the form of erysipelas. For this reason, the inverted T incision, usual in the operation for femoral hernia, may be in most cases reduced to a single incision, either at right angles to Poupart's ligament, or in a transverse direction across the tumour. In patients who are spare, and in whom the neck of the sac lies at no great depth from the surface, it is unnecessary to disturb the cellular membrane by turning aside the flaps of the integument. This will diminish the suppurative inflammation, and in such cases will afford ample room for the operation. I have not made trial of the perpendicular form of incision, but a single transverse one I have found sufficient, when the integuments have been loose, and the tumour not large. The superficial fascia adheres firmly to the common integuments, and is usually turned aside with them, especially when the latter are pinched up for the purpose of making the first incision. The fascia propria is, therefore, quickly exposed, and forms the first distinct covering of the tumour, being darker than the more superficial cellular investment. It is under the outer layer of this fascia that the adipose structure is formed, and which often assumes the appearance of omentum. The director easily makes its way under this fatty matter as far as the neck of the sac, which lies deeper than the operator at first supposes. The point of the director should be applied rather to the inner than to the outer part of the neck of the sac, as it will be found more easily to pass under the stricture at this part. It should not at first be attempted to be thrust under the stricture, as the firmness of the parts forming the stricture would resist it. But the seat of stricture being felt, the operator should depress the end of the director upon the sac, which will yield before it, and then, by an onward movement, the director slides under the stricture. The usual seat of stricture in a femoral hernia is too familiar to need any elaborate description."

"The band that produces the constriction at the femoral aperture is not entirely a process from Poupart's ligament, but is also formed by a tendinous band on the fore part of the femoral sheath, where the fascia transversalis passes in a funnel form behind

Gimbernat's ligament, to be inserted into the pubis. The thin tendinous border that descends backwards from Poupart's ligament is attached to the front part of the sheath of the femoral vessels; and any attempt to push a director under this thin border, anteriorly to the sheath, would meet with great resistance; and, if it were successful, its division would not sufficiently liberate the sac from pressure." 145.

In inguinal hernia the incision should be made higher than it is in the common operation. Commencing at the neck of the tumor it should be carried downwards for an inch and a half. The tendon of the external oblique, where it forms the ring, being exposed, a small opening should be made in it just above the ring, to admit the end of the director, and enable the operator to distinguish if the opening be at the upper or the lower opening. If the stricture is seated at the lower ring, the director must be passed under its margin, and its division must be carried to a sufficient extent.

"If the stricture exists higher up at the neck of the sac, where it will be found in the majority of herniæ of this description, the opening in the tendon should be enlarged to the extent shown in the second drawing, for the purpose of passing the director under the deeper stricture. The lower margin of the two muscles will be brought into view, with some of the descending fibres of the cremaster. These may be separated by disturbing the cellular membrane with the end of the director; and the instrument may then be introduced under the transversalis muscle till it reaches the stricture. In the subject, the director, when introduced in this manner, passes before the transversalis fascia; this will diminish what little risk there may be of wounding the peritoneum, and will carry the knife further from the epigastric artery; the tenuity, however, of this fascia, will, perhaps, often allow the director to pass beneath it. The instrument should be depressed upon the sac, in order to carry its point under the border of the transversalis, which may be divided to the extent required. This operation is more difficult than the division of the stricture in femoral hernia; the principal difficulty lies in the accurate separation of the lower edge of the internal oblique muscle, for the easy passage of the director. Drawing II. represents the parts, with the instrument passed under its edge. The stricture, however, is not so firm in inguinal as in femoral hernia, and the introduction of the director under the transversalis tendon will not be difficult, where it is fairly passed up to the neck of the sac before the attempt is made. The steps of the operation will be much the same in those smaller hernia, which are lodged in the inguinal canal. When the stricture is divided, a greater degree of pressure will be required to return the contents of a large inguinal hernia, on account of the distance from the neck of the sac to the bottom of the tumour, and especially when the omentum forms a part of its contents." 149.

In small bubonocele, in which the protrusion has scarcely reached the external ring, the same manner of operating may be followed.

Umbilical hernia is, according to our author, the one that most requires the sac to be left entire. The operation for this hernia is too often unsuccessful.

The division of the tendinous margin of the umbilical aperture is not difficult; it requires care, on account of the extreme thinness of the sac; and the operation, therefore, consists in a cautious exposure of the linea alba, where the tumour emerges from the abdomen. The orifice of the sac is rendered readily accessible at its upper part by the descent of the swelling towards the pubes; the sac, when it emerges from the abdomen, does not extend equally in all directions, but gradually makes its way downwards, in consequence

of the weight of its contents; and therefore, in old large herniæ, though the aperture in the tendon bears but a small comparison to the size of the tumour, it is scarcely at all overlapped by it at the upper part.

A case is related by our author in which the operation succeeded à merveille. We regret that we cannot insert it.

We conclude our notice of the present work. We believe we have displayed in an impartial manner the views of Mr. Key. Fortunately the expression of a critical opinion is neither desirable nor necessary, the question being one which experiment and experience alone can decide. Mr. Key may complain that we have shown no leaning to his side. Prepossession perhaps is engaged against him, but prepossession will give way to the influence of truth. Should Mr. Key's sentiments prove to be be correct, their triumph in spite of opposition and coldness will be equally certain and more satisfactory. We have merely to remark that Mr. Key deserves considerable credit for the pains which he has taken to bring the operation before the profession. The manner in which he has performed his task is highly deserving of praise.

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## X

I. OBSERVATIONS ON OBSTETRIC AUSCULTATION. By *Evory Kennedy*, M.D. Dublin, pp. 288.

II. SIGNS OF PREGNANCY AND DELIVERY. By *W. F. Montgomery*.

[From Cyclopæd. of Pract. Med. p. 45.]

A MEDICAL man cannot possibly be long, or extensively engaged in the actual practice of his profession, wherever be the field of his labours, or the department of the science that he follows, without meeting with numerous cases, which are rendered doubtful and perplexing, by the difficulty of accurately determining, whether a woman be pregnant or not: the physician knows well that he ought to modify, or even alter his treatment of other existing affections, if the womb be at the time engaged in its special functions of forming and developing the embryotic germ; he knows well that the symptoms of every disease are often curiously blended with, and masked and rendered obscure by the co-existence of such a state; that the very state itself gives rise to a host of Proteian maladies, which defy alike nosological arrangement, and therapeutic relief; that the mind, as well as the body suffers singular changes; the mild and amiable becoming irascible, morose, and fretful; the contented and happy forgetting their former cheerfulness, in capricious repining, and whimsical extravagances; and in short that his moral and corporeal treatment must be suited to the particular state of the system at the time.

Equally necessary is it to the surgeon to attend to the influence of pregnancy on those diseases, which are said to appertain to his sphere; he would be unwilling for example to perform any serious operation, which did not require to be done immediately, or he would at least be prepared for the

probable occurrence of miscarriage, and regulate his conduct accordingly; he would remember that some maladies are inevitably aggravated by the presence of a fœtus in utero, and thus avoid disappointment to himself, as well as vexation, if not positively hurtful interference to his patient—and that others are temporarily arrested in their progress, or even altogether dissipated during pregnancy. But if this knowledge be of so much consequence to the general physician and surgeon, how doubly requisite it is for him who devotes himself specially to obstetrical practice. The public expect, as a matter of course, that an accoucheur be on all occasions able and ready to pronounce upon the existence or absence of impregnation, even when the woman herself is uncertain about it.

Unaware of the difficulties which sometimes surround the question, they suppose that a doctor, and especially if he be a married man! should and ought to know at once, whether the fond hopes of the mother be rational or not; and they are apt, on receiving an equivocal reply, to attribute it to ignorance, inexperience, greedy self-interest, or some other equally discreditable motive. Now, although the "mens sibi conscia recti," regards as naught the insinuations of angry disappointment, or the abuse of malicious, although self-condemning shame, it cannot but be the desire of every honest and enlightened practitioner, that he was always enabled to decide at once and definitively on the interesting subject of existent pregnancy. The tenderest feelings of which the human breast is susceptible, would thank him for the information. The guilty consequences of concealment might often be prevented; the ridicule and sarcasm of the scurrilous world might be warded off; virtue might be protected from accusation, and crime be brought to proper punishment. We doubt that there is a situation in which a medical man can be placed professionally, so full of weighty consequences, and of anxious interest, as that of an accoucheur, in some cases, when called upon for his opinion as to the existence of pregnancy; the character, and all that is dear to a chaste woman may be foully blackened and ruined in a moment; property may be alienated from the path of justice to that of iniquity and vice; and even life itself may be, as we know that it has been more than once, sacrificed on the shrine of professional ignorance.

If then such fearful consequences may flow from medical evidence, how important is the duty of possessing an intimate acquaintance with every possible occurrence which can change or modify our opinions; and, unfortunately, on no theme of medical science is there more ambiguity and greater discrepancy of sentiments, than on the diagnosis of the pregnant state. True it is, that, even with the willing and rational assistance of the patient herself, the signs are sometimes so obscure and perplexingly variable, as to defy all confident assertion, and we are fairly obliged to confess that time alone can solve the problem; little wonder is it then, that the difficulties are ten-fold increased, when we have to combat with wilful deceit and false assertion on the one hand, or with the self-created imaginings of a longing fancy on the other. We must exercise all our tact and address in drawing out one particle of truth from the heap of lies or of nonsense which may be crammed into our ears; and nothing more strikingly exhibits the lynx-eyed sagacity of the skilful physician, and the rash forwardness of the impudent pretender, than the different conduct of the two upon such an occasion. The ever memorably absurd case of Joanna Southcote, to which

we shall allude more particularly in the sequel, is an apt illustration of these remarks. We now proceed to examine some of the most important of those evidences or signs of pregnancy, by which medical men are accustomed to be guided, in determining the existence of that state.

For the convenience of arrangement, as well as for the practical utility of an easy remembrancer, we shall briefly consider them in a four-fold point of view. The first embrace all those for the knowledge of which we are indebted solely to the patient herself or to her immediate attendants, and which, for want of a better term, we shall call "oral," in contradistinction to the other three, which are ascertained by the physician himself, either with his eyes, his hands, or his ears, and may therefore aptly enough be termed, the visible, the tangible, and the audible signs of pregnancy. Without alluding to the uncertain and only occasional feelings which some women experience at the moment of conception, viz. those of intense, and almost maddening pleasurable excitement, and of pain, or something very like it, darting through their pelvis to the back, quickly followed by a state of drowsy exhaustion, we may mention that the female system very generally indicates soon, the curious change which has taken place, in one of its most important functions. There is a fretfulness or feverish irritability both of mind and body; the pulse becomes quickened, pains are felt in the loins and through the stomach, the head achs, and the organs of sense are sometimes unusually sensitive; the patient is easily agitated and alarmed; the bowels are either confined, or have a tendency to be relaxed, and not unfrequently there is considerable annoyance in passing water.

In the course of one, two, or three weeks, generally, the stomach begins to announce its sympathetic disturbance, so well known under the name of "morning sickness," and at this period sometimes, although it is usually later, the mammæ become swollen, painful, and tingling.

Now all these signs are symptoms of pregnancy may occur before the time at which the female should otherwise menstruate, and she, therefore, looks forward to the absence or return of this discharge as a confirmation, or not, of her suspicions. The vulgar, indeed have always regarded the stoppage of the monthly courses, in a woman who was enjoying sexual connexion, as one of the surest, or at least of the most probable, indications of conception; and the opinion which is found upon general observation is, doubtless, quite correct in the main; but if you tell a woman that it is quite possible for her to be in the family-way, and yet continue to menstruate, she will scarcely credit you, and little wonder is it, when we remember that some of the most experienced accoucheurs of modern times have distinctly stated—"that they never met with a single instance of any female continuing to menstruate when she was pregnant." Such are the words of the eminent Denman, no mean authority in midwifery. Yet read the conflicting assertion of Dr. Blundel.

"We must not conclude that a woman is not pregnant merely because she menstruates; for although doubts may be raised respecting the continuance of the catamenia during the whole term of gestation, yet I have repeatedly met with cases of pregnancy, in which the catamenia have continued to flow during the first two or three months; indeed this, notwithstanding Dr. Denman's assertion to the contrary, may, I think, be looked upon as by no means very uncommon." 12.

Mauriceau tells us of a horrible case, which occurred in Paris in the year 1666. A woman was executed, although she swore that she was several months gone with child; the subject was referred by the judge to some persons, who were appointed to visit her. They reported that she was not pregnant—"because she had her monthly courses." On dissection, a four-months' fœtus was found in utero!!

From the almost unanimous opinions of accoucheurs of the present day, we are, therefore, bound to admit the possibility of the catamenia flowing for one, or for several successive periods, after impregnation; and our own experience confirms its accuracy. It has been said by some, that such discharges are not truly menstrual, but rather sanguineous, proceeding from the rupture of small vessels about the neck of the womb, and different authors have proposed means to distinguish the one sort from the other.

We are told of one eminent accoucheur, who placed so much dependance upon his knowledge of the sensible properties of the genuine catamenia, that he was in the habit of having towels sent to him from considerable distances, in order that he might distinguish the nature of the discharge from the stains. It has often indeed appeared to us rather singular, that women themselves should seldom or never be aware that there is any difference between the stains left by the menstrual flow, and those left by blood. We have often inquired of them, but never met with one who seemed to know that they were different; and the very custom of females resorting to the expedient of staining their linen with blood, for the purpose of deception (a deception which very often succeeds with their own sex), is another proof of it. As the menstrual fluid contains little or no fibrine, it does not properly coagulate, and, consequently, does not stiffen linen as blood does. Capuron says—"il faut exiger, alors, que les parties soient lavées avec l'eau tiede;—si le sang ne reparait pas, le cas est suspect." But we have heard of tricks of science to baffle this test; one of these is, to let a stream of blood flow into a cup of boiling water, and then to use this fluid as the dye—and another, which, by the bye, we accidentally discovered, when making some experiments on the action of different chemical agents on fresh-drawn blood, consists in dropping strong liquor ammoniæ into it. The following short notice we marked down at the time:—"The ammonia immediately caused the blood to assume a much darker colour throughout; only at the edges and on the sides of the cup, when it was inclined, it exhibited a pale redness; it also became thinner, and might be well compared to what is called 'sanious gore.' Six hours afterwards, the blood presented much the same appearance—it showed no signs of separation into serum and clot, but remained quite fluid, dark coloured, and tinging the inside of the cup with a pale reddish layer. When linen was stained with it, the spots resembled a good deal those from the menstrual discharge."

Although, however, we may be assisted somewhat in distinguishing the two sorts of stains, by attending to these marks we have noticed, it is right ever to keep in mind, that it is never safe to trust to them alone, and for this good reason, viz. that not unfrequently are the two discharges blended together in ordinary health, some of the small vessels giving way at the very time that the secretion is going on. No less unsatisfactory is the absence of the catamenia, as an indication of pregnancy, in another point of view; it is not, as is too well known, a symptom of this state exclusively, for

during nursing, in chlorosis, in general and ovarian dropsy, in many chronic diseases, especially of the womb itself, the secretion is stopped; and what adds much to our embarrassment is, that the very stoppage, or at least the state of the system with which it is connected, is very often attended with the other signs of impregnation—the tumid belly, the haggard looks, the morning sickness, and the painful breasts; add to these sometimes the counterfeit feelings of quickening, produced by the rolling about of wind in the bowels, or a convulsive twitching of the abdominal muscles, or by the pulsations of the aorta, &c. This last-mentioned sign, we mean that of quickening, is, indeed, an important one to be rightly understood, not only as to the varying characters of its actual occurrence, but also in regard to those phenomena which may simulate and be mistaken for it. It has acquired a very improper and a dangerous distinction, from the legal consequences affixed to its having truly happened, or believed to have happened.

The terms "quick with child," "to be pregnant of a quick child," and such like, ought to be erased from the vocabulary of the law, as we shall explain more at large at a subsequent part of this paper; for they imply a most ignorant presumption, and are derived from the vulgar prejudices, that the child in utero does not begin to live until the mother has felt the quickening motion. With regard to this symptom, no medical man in the present day will attach too much importance to it, when disjoined from, and unattended with, the other signs. The forcible and pithy observation of Dr. Conquest, in his evidence upon the Claims to the Gardiner Peerage is quite true:—"Many old women, who are determined to have children when they marry late in life, and many single women who wish not to have children, are very apt to be deceived." We have read of a case, where not only the lady vowed that she had felt the motions of the child within her, but also her husband, a medical man, too, was equally assured that he had recognized the kicking and thumping of the little one through the abdominal parietes; and yet the pregnancy was one of some watery cysts in the uterus. The knowledge of such facts ought never to be lost sight of; and their importance is enhanced, by the occasional completion of genuine and perfect pregnancy, without this system having been even once recognized by the patient.

## VISIBLE SIGNS OF PREGNANCY.

The most important of these are derived from the inspection of the mammæ, of the abdomen, and of the urine.

The mere enlargement and painful state of the mammary glands are not much to be depended upon, as the same changes take place in a multitude of other affections, especially in whatever involve the generative organs; we shall, therefore, limit our remarks, at present, to the subject of the dark circle, or areola, which is formed round the nipples of pregnant women. Here, as upon so many other occasions, we shall be obliged to admit the truth of the old taunting proverb—"doctors differ." Drs. Smellie and Wm. Hunter regarded the formation of this dark ring, as proof positive and conclusive of pregnancy; and the latter eminent physician is "said to have placed such confidence in it, that he on one occasion pronounced a female subject, in the dissecting-room, pregnant upon this single sign, although

the hymen was perfect; and his opinion, on dissection, proved correct.* On the other hand, Dr. Denman, with all his practical opportunities and acute powers of discrimination, has arrived at a very different estimate of its value."

Dr. Montgomery supposes that much of the discrepancy of opinion upon this subject has arisen from inaccuracy in observing and describing the essential characters of the true areola; too much attention has been paid to the mere change of colour, and too little to the other accompanying phenomena. He, therefore, adduces the description left by Rœderer, as the only proper test by which to judge of the value of this sign. The words are—

"Menstruorum suppressionem mammarum tumor insequitur; quocirca mammæ crescunt, replentur, dolent interdum, indurescunt: venæ earum cœruleo colore conspicuæ redduntur, *crassescit papilla, inflata videtur, color ejusdem fit obscurior, simili colore distinguitur discus ambiens qui in latitudinem majorem expanditur, parvisque eminentiis, quasi totidem papillulis, tegitur.*"† 9.

All these individual appearances ought to be observed, and, in addition to them, a soft and moist state of the integument, and occasionally a slight oozing from the little glandular follicles, sufficient to damp and colour the woman's inner dress. We are not to expect to find these changes before the end of the second month; at the end of the fourth, they are generally perfected. Dr. M. is inclined to place very considerable confidence in the indications to be drawn from the state of the nipple and of its areola. When all the appearances above described are coexistent, he says, "they are marks of great value, and in experience have never deceived us; and we certainly never saw any other condition of the part produced by disease, which could possibly be mistaken for them."

The secretion of milk, or of a milky fluid, from the breasts, is a sign which we cannot well rely upon; for not only can some women, who have had children, work a little milk out at all times, but old women and young maids, and even our own rougher sex, have occasionally acted the part of a wet-nurse—*see* Humbolt's Personal Narrative, and the Bishop of Cork's paper in Phil. Trans. for 1741.

The other ocular signs of pregnancy, such as the size of the abdomen, the protrusion of the umbilicus, the swelling, œdema, and varicose state of the lower extremities, and the peculiar sharpening of the features, although worthy of notice, are of very inferior value if taken by themselves. The chemical test lately proposed by M. Nanche, has been found by Mr. Kane, of Dublin, to be quite inapplicable. M. Nanche has stated—

"That pregnancy may always be detected by 'allowing the urine of pregnant women or nurses to stand for some time, say from thirty to forty hours, when a deposit takes place of white, flaky, pulverulent grumous matter, being the caseum or peculiar principle of the milk formed in the breasts during gestation.'" 56.

The conclusions which Mr. Kane drew from his experiments were the following:—

"That a white flocculent precipitate, similar to that described, subsided spontaneously after twenty-four hours, not only from the urine of pregnant women, but also in equally

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* See Lowder's MS. Lectures.

† Elem. Artis Obstet. pp. 46-7.

great quantity from that of a virgin, ætat, 14, and that of a woman nursing for two months.

"That in all the cases of pregnancy the urine was found to contain a small quantity of *albumen** in its uncoagulated state, although this was not observed in the urine of unimpregnated females contemporaneously examined." 57.

### TANGIBLE SIGNS OF PREGNANCY.

They are obtained by an examination, either per vaginam, or of the abdomen and its contents outwardly. The first of these methods, or, as the French designate it, "le toucher," informs us of the condition of the mouth and neck of the womb, which, in pregnancy, undergoes very marked changes, and of the womb itself, in respect to its bulk, its weight, and also its contents, at least occasionally.

We have not space to allude more in detail to each of these particulars, and shall, therefore, merely mention those which are least understood, and which have not been sufficiently explained in some of the more recent manuals of midwifery. The late Dr. Gooch, always a respectable authority, used to insist much upon the importance of employing the vaginal and abdominal explorations at the same time; while the fingers of the right hand are applied upon the neck of the uterus, pressure is to be made upon the uterine tumour, above the pubes, in order to ascertain whether the moving of the tumour above will alter the situation of that felt in the vagina and *vice versâ*. "We cannot, however, properly expect to discover the nature or contents of the tumour in this way; all that is announced to us is, simply, that there is an enlargement of some of the pelvic viscera, or that there is a morbid growth in the pelvis; thus, ovarian dropsy, extra-uterine conceptions, the presence of moles, hadatids, and so forth, in the womb itself, will give rise to this sign, and Dr. Gooch was incorrect in asserting, "that we are by this means, *certain* that the tumour which we feel is an enlarged uterus.

There is a method of performing "le toucher" which is much recommended by the French writers, and which, when applicable, for it is not in all cases, may assist us a good deal in determining the existence of at least "a something" in the cavity of the uterus. If the finger be pushed against the anterior part of the organ, between the os tincæ and the pubis, with a sort of jerk upwards, we may sometimes so tilt the depending head of the child, as to make it rise up from the finger through the liquor amnii, when it again falls down, with a slight shock or impulse, on the finger. This passive motion of the fœtus, or as the French term it, "abattement," is indeed a valuable sign, when it is distinctly felt; but all the periods of pregnancy do not admit of its application; if the child be too small, as before the fifth month, or too bulky, compared with the quantity of the fluid in which it floats, as after the seventh month, the sensation will, perhaps, not be felt at all; besides, it is possible that a pediculated polypus in the uterus, or a complication of ascites with the presence of some tumour in the pelvis may give rise to it. As a matter of course, it does not indicate whether the child be

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* "It is scarcely necessary to state, that the solution of the bichloride of mercury affords by much the most delicate test for this, a few drops of it throwing down a white flaky precipitate."

dead or alive. So much for the vaginal examination; the abdominal is frequently still more important. Let the woman be laid on her back, with the head and shoulders elevated, and the limbs well drawn up, and then, after a deep and sudden expiration, as after coughing or sighing, the physician is often enabled to feel, not only the contour of the uterine tumour, but even the parts of the child, when the pregnancy is considerably advanced. Having done this, our next step is to discover, if possible, the motions of the child, by the hand applied to the abdomen, and pressing it suddenly, and with a degree of succussion; this causes the child to start, as it were, and give a jerk or slight kick, which is readily recognized in many cases.

If, however, we fail in this way, the ready expedient of plunging the hand first in very cold water, and then suddenly laying it over the abdomen, will often at once detect the motions of the child; these movements, it will be understood, are muscular, and indicate the life of the being which impresses them; but there is another kind of movement, which is the effect merely of mechanical weight, and is produced by the body of the child rolling over from one side of the womb to the other: the mother is often sensible of this, upon any sudden change of position, especially if the child be dead; and when felt by the physician, upon pressing or tapping the abdominal tumour first at one side, and then at the other, it is quite like that of a solid body, falling against the side of a membranous bag, containing a quantity of fluid, in which it is partially suspended. The French have given to this passive motion the appellation of "ballottement." Any moveable tumour, as that from enlarged ovary, complicated with ascites, may give rise to an impulse against the hand of the explorer, which may be mistaken for the true "ballottement."

Before proceeding to detail the audible signs of pregnancy, it will be useful to mention a method of examination which was long ago recommended by Wrisberg, and which, although decidedly useful, has not met with the attention which it deserves. Our author has been much in the habit of employing it, and his experience warrants him to inculcate its utility on his professional brethren. By applying the cheek to the abdomen of a pregnant female, the motions of the child may sometimes be very distinctly perceived, which were extremely faint, or altogether imperceptible, to the hand.

"It is not easy (says Dr. Kennedy) to explain why we should arrive at more accurate conclusions in this way, than merely by the use of the hand; possibly, the weight of the head being irksome to the fœtus, induces it to struggle as it were to free itself from the pressure, by which means it imparts to us, as well through the sense of touch in so delicate a part as the cheek, as through the ear, its slightest motions, which might have escaped our observation on the application of the hand. However, the principal advantage we derive from this means of exploring seems to be, that, by allowing the head to rest for a sufficient length of time on the abdomen, the abdominal muscles are not, in the mere resting of the head on them, stimulated to contraction, as they are in a manual examination; on the contrary, they become fatigued, and being (as we may express it) taken off their guard, they relax and yield, allowing the head to sink more and more into the abdomen; until at length, when there is no gravid uterus in the way, we may often succeed in pressing the cheek upon the vertebral column, thus convincing ourselves of the absence of pregnancy, at least in an advanced stage." 64.

## AUDIBLE SIGNS OF PREGNANCY.

The application of percussion to the elucidation of abdominal diseases, although as old as the days of Hippocrates, has been but very rarely resorted to by the accoucheur, to assist him in his diagnosis of pregnancy. Its utility indeed, is and must be, from the nature of the varying surface on which it is made, always limited, and often completely nullified; but this is no reason that we should refuse to admit it among our means of diagnosis; knowing its uncertainty we should rather strive to increase our knowledge of its powers. If we tap upon the hypogastrium of an unimpregnated, or recently-impregnated female, a tympanitic sound (provided the urinary bladder be empty,) like that which arises from tapping the blown-out cheek, is elicited; the reason of this is abundantly obvious—the intestines are in contact with the abdominal parietes, and the uterus is still imbedded within the pelvis. In proportion, however, as this organ rises up, and overtops the level of the pubis, the sound which is heard on percussion becomes dull and fleshy, similar to what is caused by striking the thigh with the fingers; the extent upwards over which this dull sound is heard, increasing as pregnancy advances, and the range of the tympanitic sound becomes more and more circumscribed, being confined chiefly to the lateral parts of the abdomen. In the latter months of gestation, the sound, immediately above the pubis, has a drier and harder character than it has hitherto exhibited; this arises from the percussion being applied upon the head of the fœtus, which is usually situated downwards. The seat of this dry (sec) sound necessarily varies with the position of the head, and, as we can not unfrequently distinguish the head of the child by a manual examination through the abdominal integuments, we are thus enabled to corroborate the evidence we arrive at by percussion. Much dependence, as we have already stated, cannot be placed on these phenomena;—far otherwise it is with the other branch of auscultation, when rightly applied to the discovery of pregnancy, at least when it has advanced beyond the first two, or three months.

The author, to whom the merit is due of having first applied Laennec's immortal discovery, to the advancement of obstetrical science, is M. Major of Geneva, who in the ninth volume of the Bibliotheque Universelle, announced, that the pulsations of the fœtal heart might be heard, through the abdominal parietes of the mother, in the latter stages of pregnancy:—But with this simple fact did he rest satisfied, and prosecuted his researches no further. In 1822, Dr. Kergaradec published his "Memoire sur l'Auscultation appliquée à l'etude de la Grossesse" in which, still ignorant of his predecessor's labours, he distinctly proved that not only might the action of the fœtal heart be ascertained by means of the stethoscope at a period much earlier than M. Major had supposed, but also that a whizzing murmur, or souffle, (such as is observed in certain diseases of the heart, and large blood-vessels) accompanying a simple pulsation, synchronous with the maternal pulse, was clearly perceptible at the same time. The cause of the latter sound, he believed to be the circulation of the blood through the placenta; and naturally concluded, that where the sound was heard, the placenta was attached to the womb. Now as this "souffle placentaire," or as Dr. Kergaradec calls it "battement simple avec souffle" may be heard for a considerable period anterior to the earliest recognition of the fœtal pul-

sation, we shall examine it first. Upon applying the ear over the uterine tumor, either directly, or with the stethoscope interposed, we perceive a blowing, or hissing sound, well known to auscultators, by the name of the 'bruit de soufflet;' sometimes it has more of a rasping, or sawing character; at other times it resembles the cooing of a dove, or the drone of a bagpipe; but these varieties are only occasional; by far the most common being the whizzing murmur. The extent over which it is perceptible is very different in different cases; it may be limited to one spot, which the end of the instrument covers; or it may be heard over the greater part of the uterine swelling; still, as a general rule, we should say that it is at the lower and lateral parts of the womb, where it is strongest and most readily discovered; and the placenta will be found attached to the spot, where the sound had been heard; at least this is true, in a vast majority of cases. Exceptions do occur, now and then, but they are rare, and the general position will be found in practice to be correct.

Dr. Kennedy informs us that at first he was of opinion that the seat of the souffle uniformly denoted, the adherence of the placenta; but he is now satisfied that a similar sound may be occasionally heard over the lateral part of the uterus, although the placenta is not actually attached to this part. The explanation is given in the following words.

"In the neighbourhood of the ligaments, at the lateral parts of the uterus, we shall also find a more full distribution of vessels, even when the placenta is not attached there, as the principal vessels which connect the uterus with the maternal system pass into it at those points." 69.

Whenever indeed the vessels of a part are in a state of very active and plethoric circulation, we shall discover a certain degree of the bruit de soufflet, upon an attentive auscultation;—it is the case in aneurism from anastomosis; and the very striking resemblance between certain parts of the impregnated uterus, and this morbid structure is well worthy of notice. If we make a section of the uterine walls, at the part where the placenta adheres, or from which it has been recently detached, we discover a congeries of large tortuous vessels, ramifying through its substance, and expanding into cells, or sinuses, which open upon the internal surface; the rest of the organ exhibiting the usual fleshy-parenchymatous structure, with merely occasional vessels interspersed.

Authors have not however been agreed as to the true seat of the sound, under consideration; and not a few, even of the most recent and eminent explorers, suppose that it resides in the iliac arteries, where the enlarged uterus exercises a compression on their tubes; such is the opinion of M. Bouillaud, as explained by him in a late number of the Journal Hebdomadaire, and which our readers will find alluded to in our last number, page 519. Dr. Haus of Wurzburg advocates the same doctrine, and objects to the placentary origin of the sound, because it is occasionally intermittent, and is often perceptible over the whole uterus.

"In answer to these arguments, it is merely necessary to state, that as to the intermission, the same objection would hold against the supposition that the *souffle* is produced in the aorta or iliac arteries. Again, how does he explain the fact of the sounds being heard in the part of the uterine tumour corresponding to where the placenta is attached, and ceasing when this system of vessels becomes impervious, or the uterus contracted? As to the fact of its being heard over the whole uterus, if this gentleman had sufficiently

inquired into the matter, he would have found that it is rarely if ever perceptible over the whole of that organ, although it is often met with over a greater or less extent of its anterior wall; and in such cases he might have detected the placenta attached there; also, where the sound could not be detected, he might have found it attached posteriorly. Further, had he in such cases attended to the position of his patient, and examined minutely and carefully in the lumbar and iliac regions, he would have been less frequently disappointed in his attempts to detect it than he appears by his own account to have been." 73.

The theory of M. Bouillaud, whom we admit to be one of the most accomplished auscultators of the present day, is met by some powerful objections. If the sound be produced by the narrowing of iliac arteries, in consequence of the pressure of the gravid uterus on the calibre of these vessels, why is the phenomenon not uniformly observed in the case of other pelvic tumors? and why should it cease, as we know that it does, when the fœtus dies, although we had heard it most unequivocally, at an anterior period of pregnancy? Besides how will M. Bouillaud explain the fact, that the sound can be heard sometimes only over a very limited extent, and almost always either at that part where the placenta is attached, or at the side of the uterus, where the chief congeries of the hypogastric and spermatic vessels exists? "These facts," says Dr. Kennedy, "have been repeatedly proved by manual examination, when it has become necessary to introduce the hand into the uterus to remove the placenta, as well as by occular demonstration after death."

It is scarcely necessary to allude to the hypotheses of those, who have strangely supposed that the placentary bruit resides in some part of the fœtal circulation, as the umbilical arteries; or in any of the venous trunks, whether of the mother, or of the child;—we need only remember that the accompanying pulsations are uniformly synchronous with the beats of the mother's pulse,—a sufficient answer to the first of these theories, and that the stream of the blood in veins, is continuous, and not in jerks, or periodic impulses, as a refutation of the second.

We have next to inquire, what is the earliest period of pregnancy, in which it is possible to detect the placentary murmur.

According to Dr. Kennedy's experience, it cannot be heard before the end of the second, or beginning of the third month;—he has repeatedly succeeded in detecting it in the tenth, eleventh and twelfth weeks.

It is important to attend to this, as we shall find hereafter, that the fœtal pulsations cannot be ascertained until the 17th or 20th week of pregnancy. The following cases are abundantly illustrative.

"August 15th, 1829. A woman named Devereux, who had been under my care in labour eighteen months before, called to consult me for a slight attack of pneumonia. She mentioned that her menses had not appeared for the last two months: I therefore examined her with the stethoscope, and detected clearly the placental *souffle*, although no uterine tumour was observable. Dr. Collins, who also examined her, expressed his astonishment at its distinctness at that early period. I gave this woman reason to suppose it possible that she was pregnant, of which she had not the slightest anticipation. However the accuracy of the diagnosis was attested by her coming into hospital on the 7th March, 1830, in labour, and being delivered of a living child the day following, exactly twenty-nine weeks from the period at which we had examined her." 82.

*Case* 2. "Dr. Mollan desired my attendance to examine a patient of his labouring under

insanity. She was married, and had been living with her husband about three months before our seeing her, since when, no menstrual discharge had been observed. No further evidence of pregnancy could be arrived at, and the patient was so unmanageable, as to prevent our ascertaining any thing by a vaginal examination; with much difficulty she was kept quiet long enough, to allow the stethoscope to be applied. When the *souffle* was distinguished in the uterine region, but no tumour could be detected, we explained, that it was impossible to give a decided opinion upon this single symptom; but that the impression on our minds was, that she was pregnant at a very early stage; Dr. M. regulated his treatment accordingly, and I three months afterwards learned from him, that there was no doubt of the pregnancy, as he and Dr. Hanna then distinctly detected the fœtal heart and the motions of the child." 83.

*Case* 3. "I was sent for one morning by a lady, who came over clandestinely from the sister kingdom. The statement she gave me was as follows. She had for some months been in the habit of receiving the attention of a gentleman to whom she had formed an attachment; but unfortunately fell a victim to her father's caprice, who, after countenancing this attachment, suddenly withdrew his consent to their union, and insisted on her marrying an individual of his own selection. Ten weeks had elapsed from the time of her first giving way to illicit intercourse, when she consulted me; during which two monthly periods had passed without the usual menstrual discharge: and ten days before my seeing her, in consequence of some active exertion, a discharge of blood took place from the vagina, which lasted for a few days. Her father urged her compliance with his wishes; and she, dreading to enter the marriage state whilst there was a possibility of her being pregnant, consulted a medical man of eminence, who, after the usual investigation, pronounced that such was not the case. Impressed, however, with a painful foreboding of the true nature of her state, although she had no further symptoms of pregnancy than that already mentioned, she determined on obtaining further advice; and, under a pretence of visiting a friend in the country, came over to Dublin. On the most accurate examination, I could ascertain no further grounds for suspicion than the presence of a remarkably distinct *souffle*, which was discoverable on pressing the end of the instrument in the pubic region over the uterus. Relying on this, I gave her to suppose that there was a strong likelihood of her being pregnant, although I could not actually pronounce such to be the case. The result fully justified the confidence reposed in this, as a means of diagnosis, for, exactly nine months from the period when she calculated, she gave birth to a child." 81.

Few readers will be bold enough to impeach the authenticity of these cases, or the strict veracity with which they are reported; and yet, strange to say, not only most practitioners, but even many authors, of the present day presume to treat auscultation with neglect. If they will not use their ears, and satisfy themselves of its truth, they must blame their own wilful and obstinate ignorance if they are frequently perplexed in numerous cases, where they, as well as their patients, are most anxious to obtain a correct diagnosis: we tell them that, if they will but take the trouble patiently, attentively, and repeatedly to listen, either with the naked ear or with the stethoscope, over the hypogastrium of a woman who is with child, they will hear the sound which we have endeavoured to explain in the preceding pages, and the ascertaining of which was of such great importance in the cases we have detailed. True it is that auscultation, like every other new object of knowledge, requires a certain portion of time and of trouble to be able rightly to appreciate its value; and equally true is it, that the student may encounter perplexing difficulties and discouragements in his first essays to acquire the quickness of ear which is necessary to detect its indications. He may mistake

other sounds for the one he is in search of, or he may hear the true placentary murmur one day, and not hear it on another; or, lastly, he may completely fail in detecting it at any time, although all the other symptoms of pregnancy be present. A few explanatory remarks may, therefore, be useful. With regard to the sounds which simulate the placentary souffle, they are derived either from the chest, or from the abdominal viscera, or from the aorta, and other large vessels. The common respiratory murmur is sometimes so propagated along the abdominal parietes, that it may be heard by the ear applied over the pubis; equally so is it with the sonorous and other râles; but, independently of the very dissimilar character of these sounds, they are simultaneous with the breathing, and have no synchronous action with the pulse at the wrist, a coincidence which necessarily accompanies the true placental souffle; did we require any other disproof, we have only to examine the abdomen higher up, and the sound will be found to be more and more distinct as we approach the chest. By attending to these particulars, we may also easily distinguish any intestinal rumbling, produced by the passage of air from one portion into another; the noise heard varies in its seat, its intensity, and character, and there is no harmony between its repetitions and those of the pulse. The third set of simulating sounds is much more difficult of accurate discrimination, namely, those which have their seat in some of the large arterial trunks of the abdomen or pelvis; they closely resemble, nay, sometimes are indentically the same as, the true placentary murmur, and depending, as they do, upon the same current of blood, they are necessarily synchronous with each other, and with the pulsations of the heart.

"Fortunately (says Dr. Kennedy), such cases are rare, and although we have frequently intentionally produced *bruit de souffle*t, by pressing the end of the instrument on the aorta or iliac arteries, yet, amongst the number of patients examined whilst attending to this subject, we have met with but one case likely to be confounded with pregnancy; where a sound resembling the placental *souffle*, from a morbid cause was observable. The case alluded to was one of considerably enlarged liver, the pressure from which appeared to have this effect; but here the sound was confined to a small spot immediately over the aorta. We shall be enabled to distinguish *bruit de soufflet*, when it so occurs, or arises either from aneurism, hemhorrhage, hysteria, or nervous states of the system, by its concomitant symptoms; and in the latter cases, to use the words of Laennec, 'when the bellows sound exists in the aorta, particularly the ventral portions of it, there is always a marked state of disorder in the nervous system, viz. agitation and anxiety, faintings more or less complete, and produced by the slightest causes, and an habitually quick pulse.'"* 77.

The limited extent over which the bruit de soufflet can be heard, and the variableness and irregularity of its strength at different periods, appear to be the chief, although, we admit, not always quite satisfactory diagnostic marks. If, indeed, the compressing cause be a moveable tumour, or an accumulation of hardened fæces in the colon, or the stethoscope itself (for it must always be remembered that a certain degree of this bruit may at any time be produced, by leaning the instrument too forcibly over the canal of a considerable arterial trunk), then we may find it cease altogether when such pressure

* Laennec, by Forbes, 2nd Ed., p. 698.

is removed, as by raising the tumour with the hand, or by altering the position of the patient, by clearing the intestinal passages, or by a lighter and more adroit application of the instrument.

But, although we have completely satisfied ourselves that it was the placentary, and no other sound, which was perceptible upon our first examination, it may possibly occur that we may be foiled to hear it at another time. It seems, therefore, that it is sometimes intermittent; and this phenomenon has been so puzzling to explain, that it has led Dr. Haus and other observers to suppose, that it cannot possibly reside in any of the uterine vessels, which, to our knowledge, are not subjected to any periodic changes. It must be frankly acknowledged that, hitherto, no satisfactory solution of this difficulty has been given. Dr. Kergaradec supposed that the intermissions were attributable to changes of position assumed by the fœtus. This may possibly be the case, but the idea, as yet, can be received only as conjectural.

"In such cases, the cessation of the sound is not permanent; therefore, by repeating our examination, we shall succeed at another time in discovering it. Uterine contraction suspends it, in most cases completely, whilst this organ is in action; in some, it converts it, during the pain, into an abrupt sound or pulsation; the former are the cases in which we have most frequently observed this omission to occur." 79.

But now and then examples occur in practice, where not even frequently repeated auscultation of the abdomen can detect the placentary souffle; perhaps, as yet, we are ignorant of several of the conditions in which it is awanting; but there is one, hitherto little noticed by authors, well worthy of our attention—we mean, when the placenta is attached to the posterior wall of the uterus, and the sound of its circulation is so muffled and obscured by the intervening contents, that it scarce can be recognized by the ear, applied over any part of the hypogastrium. Whenever this state of things is suspected, let the stethoscope be placed over the sacral and lumbar regions, close to the ilium, and we shall sometimes succeed in hearing the expected sound.

Having thus sufficiently explained the earliest auscultatory sign of pregnancy, we proceed now to the examination of the second, which is yet more easy of detection, and more decisive and important as a means of information. The double pulsatory sound of the fœtal heart, if once heard, cannot possibly be confounded with any other, except in those cases where the maternal circulation is very much quickened; and even then, there is a want of synchronous harmony between them. The fœtal pulse generally beats about 130 or 140 beats in the minute; but, like that of an independently-existing animal, it is liable to very considerable vicissitudes in point of frequency.

It is decidedly affected by the motions of the fœtus itself, being usually accelerated after such—by any action of the uterus, especially on the approach of and during labour—by hæmorrhage, venæsection, or any sudden mental emotion affecting the mother.

*Case* 1. A woman was seized with labour-pains, while suffering from a severe attack of croup. The febrile excitement ran high, and the pulse was 140. The stethoscope, applied midway between the umbilicus and the right anterior spine of the ilium, detected the beatings of the fœtal heart, which were weak, indistinct, and much quickened, being 190 or 200 in the minute.

A feeble, delicate child of the 8th month was born, and its pulse then amounted to 180.

*Case* 2. Another patient was seized with violent pleuritis during labour. Her pulse was 140. The fœtal pulse could be heard over a considerable portion of the abdomen, extending across the whole hypogastric region, into the inferior part of the umbilical and lumbar regions; the number of beats was 180 in the minute. The placental souffle was audible only over a small spot in the left groin; it corresponded in frequency with the maternal pulse.

The patient was largely bled; her pulse rose to 150, and then to 170, and the fœtal pulse fell first to 150, and then to 90. Keeping the ear applied for some minutes to the stethoscope, while the patient was very low, although there was not complete syncope, Dr. Kennedy found that the action of the fœtal heart varied considerably in frequency, being one minute 92, next rising to 100, and then to 128, and that it ranged between the two extremes, until the mother had recovered from the effects of the bleeding; then her pulse fell to 130, and that of the fœtus rose to 135. It now continued between this and 100, the frequency varying every two or three minutes for half an hour, and at last it ceased altogether. The woman was delivered in the evening of a child, which had all the appearance of having recently died.

*Case* 3. A woman was admitted into the Dublin Lying-in Hospital, with uterine hæmorrhage. The placenta was found to be separate from the posterior part of the cervix uteri. She had felt the motion of the child a few minutes before the examination. The placental sound was heard at the left side, stretching into the iliac region, about 100 in the minute; the fœtal pulsations in the neighbourhood of the umbilicus—they were feeble, and 108 in number. The hæmorrhage continuing, the mother's pulse rose to 110; that of the fœtus fell to 88.

"Just at this moment the child was felt moving violently, or rather convulsively, both by the patient and myself. These motions were repeated four or five times in the course of a few minutes, and then ceased altogether, after which the fœtal pulsation could not, upon the closest examination, be detected. The placental sound still continued audible, but became altered and abrupt in the character. The evident inference in this case was, that the child had died from the effects of the hemorrhage, and that the change in the pulse, and convulsive motions observed, were the forerunners of its dissolution. I mentioned this to the pupils who were present with me whilst making the examination, at the same time expressing my conviction that the child would be born dead. In about three hours afterwards, the patient was delivered of a large female child, dead, but exhibiting every appearance of recent vitality, and of having lately been in the perfect discharge of its functions. It was examined six hours afterwards, when the heart and great vessels were found loaded with dark blood, and the sinuses and vessels of the brain similarly circumstanced." 96.

These cases clearly show the decided influence, which disorders of the mother's system exercise upon the fœtal circulation in respect of its frequency and strength.

The extent over which it may be heard is equally subject to differences; in the majority of cases, it is to be met with over a surface of three, or four inches square, in the hypogastric region, and generally it is more clear and

distinct on one side, than on the other; sometimes indeed in the course of the linea alba; and sometimes on both sides, as well as there. In advanced pregnancy, its most usual site, is midway between the umbilicus, and one of the anterior spines of the ileum; even in the earlier periods, this is sometimes the spot, where it can be most easily ascertained. We must therefore carefully explore the whole surface of the uterine tumor, before we pronounce the sound to be inaudible. No doubt these differences in the situation of the sound, depend upon the varying positions of the fœtus. Whenever there is a large quantity of liquor amnii, the sound of the heart is less obvious; perhaps this is one of the reasons, that it is so much less distinct in early, than in more advanced pregnancy:—no doubt, also the feebleness of the little organ contributes to the same effect. It is rare that the fœtal pulse can be detected before the expiration of the fourth month, and until after quickening has taken place; the uterus then rises higher, out of the pelvis, the fœtus becomes more active, and is situated closer to the abdominal parietes than hitherto. At this period, it is always weak and indistinct, and although heard to-day, may not be audible to-morrow; even the lapse of a few minutes will cause the disappearance of all sound, and then it will return; the greatest nicety of ear, as well as patience in renewing the examination, are requisite, in all stethoscopic inquiries, to discover the early fœtal pulse. Dr. Kennedy has met with cases where he has been quite puzzled to hear it, at a first examination, in the fifth month, although the placentary murmur was very distinct; and yet a few days subsequently he detected it at once, in the very same spot which he had before examined without success. In proportion as pregnancy advances, the sound of the fœtal heart becomes more and more distinct, and less subject to intermittent irregularities; the liquor amnii is now considerably reduced in quantity; the child no longer floats about in the water, but remains more steadily in contact with the walls of the uterus. Not only does the sound become more forcible, but the extent over which it may be heard is much increased, so that, towards the full period of gestation, it may be perceived over the greater part of the uterine swelling, and more especially in the lower part of it, between the pubis, and an inch below the umbilicus.

Such, therefore, are the two auscultatory signs of pregnancy—the placentary bruit and the fœtal pulsation; when the former only can be discovered, there may be room for some hesitation in pronouncing upon the nature of the case—where both, or even the latter by itself, is clearly and satisfactorily made out, no rational mind can hesitate a moment. We know that some very recent authors have hazarded an opinion unfavourable to the use of auscultation in such cases; but we are inclined to impugn rather the accuracy of their ears, than the sincerity of their hearts or the sagacity of their heads.

To adduce arguments from mere reasoning, on a subject cognizable by the senses alone, is utterly ridiculous, unless we are to become disciples of the Berkeley school, and boldly deny the existence of all matter, and, therefore, despise all methods of appreciating its qualities. The limited opportunities of some practitioners may, indeed be unfavourable to their ever acquiring that adroitness of examination, and that delicacy of hearing, which are necessary to make a good obstetrical stethoscopist; but surely a public teacher, and a physician of any midwifery institution, ought henceforth to

hesitate, before they decide upon the merits of a question which appeals to one of our outward senses as its only fit tribunal. Far better will it be, alike for their candour and their professional character, at once to avow either the cloudy dulness of their perceptions, or the wilful obstinacy of their prejudices.

We consider it to be a duty to ourselves, who were among the first to introduce the knowledge of auscultation to the British public, and have continued to be its firm advocates up to the present hour, as well as to all our readers, especially such as are abroad, and whose opportunities of consulting the mass of modern works are necessarily limited, to seize every occasion of inculcating the importance of employing auscultation, in all cases where it is applicable. Hitherto, its domains have been chiefly the chest, and the courses of its larger arteries; but, like every other discovery based in truth and nature, the extent of its value can never be duly appreciated at first; its progress increases with our inquiries, and one of its very noblest claims to our favour, and one of its proudest triumphs, is the light which it has so unexpected shed upon obstetrical science.

Will any one presume to gainsay its importance in the following cases?

"I was requested by Dr. Mollan to examine with him a lunatic patient under his care. She was a married woman. For some months before our seeing her, her menses had not appeared. This circumstance excited a suspicion that she might be pregnant; a fact which it was of importance to ascertain, as well with a view to treatment, as to the obvious precautions necessary to have recourse to under such circumstances. She was so perfectly deranged in intellect, that the usual means of arriving at information, through the individual's own statements, were quite unavailable; and so uncontrollable was she, that a vaginal examination was out of the question. The stethoscope was applied, and in an instant the question was decided, as a fœtal heart's action was distinctly perceptible, both to Dr. Mollan and myself. The motions of the fœtus were also distinguishable in the same way. This woman was some months afterwards delivered of a full-grown child Had the medical attendant in this or similar cases, from ignorance of the existence of pregnancy, had recourse to treatment calculated to restore the menstrual secretion, what might not have been the result? and yet it is the course that would in all likelihood have been adopted by an incautious practitioner."

*Case* 2. "Mrs. W. mother of two living children, in the third month of her late pregnancy, had considerable hemorrhagic discharge per vaginam, attended with severe pain in the back. These symptoms ceased in a few days, by the observance of strict quiet, joined with the use of the ordinary remedies. She was similarly affected, at intervals of about four weeks, for three successive periods. Between the second and third of these periods, she said she began to feel the motion of the child. After the fourth return, though she declared her unabated confidence in the accuracy of her sensation, as to the movement of the child, I thought it advisable to institute a more strict investigation. On an examination per vaginam, the cervix uteri was not so altered as to remove my doubts, and the 'ballottement' of the French writers never afforded me such undoubted evidence of pregnancy, as a reader of their works might be led to expect. I carefully applied the stethoscope, and dinstinctly heard the pulsations of the fœtal heart, which fully satisfied me as to my patient's state. She carried the child until about the seventh month, when labour came on, and an infant but very recently dead was born. The recovery was tolerably favourable." 105.

Dr. Byrne has communicated the details of a very interesting case, which

had been pronounced by the medical attendant to be one of a cancerous tumour growing from the fundus of the uterus, and involving the Fallopian tubes and ovaries. The treatment usual in cancerous diseases had been employed with no effect. The patient was a pale delicate woman, 34 years of age, and mother of three children, but had not been pregnant for three years, during which time the catamenia had been extremely irregular. She had been much distressed by the growth of a tumour, which seemed to rise from the pelvis, as she was quite uncertain whether she was in the family-way or not. The general symptoms were occasional sickness, pains about the loins, loss of appetite, and absence of menstruation for five or six months. Upon consulting her accoucheur, she was informed of the dismal malady with which she was afflicted. Dr. Byrne, upon applying the stethoscope immediately below the umbilicus, heard a masked murmur, very different from the borborygmus of the intestines; and changing the instrument a little to the right side, he distinctly recognised the placental souffle; on the left side he could hear the fœtal pulsations, which were 140, while those of the mother were only 90. Two months after this examination this patient was delivered of a healthy child.

But if the preceding case offered any rational grounds of embarrassment, how much more annoying and distressing were they in the following one, where even an experienced and skilful accoucheur was quite doubtful whether the woman was pregnant or not? The abdomen was enormously distended with water, and there was general œdema; the dropsical symptoms had existed for a year and a half, during which time the catamenia were very irregular, being sometimes absent for several months, and then returning. When Dr. Kennedy visited her, they had not been observed for six months previous; if pregnant, she had not quickened as at former times; only of late, she thought that she occasionally felt an indistinct motion. No satisfactory information could be obtained by examining either the abdomen outwardly, or the uterus per vaginam, in consequence of the extremely swollen state of every part; but the ear at once discovered the placental souffle on the right side; the fœtal pulsation, although it could not then, was afterwards discovered remarkably small and obscure, but at times it could not be heard at all, whereas the placentary sound was uniformly and easily audible. As the woman was in a state of extreme debility, and suffering from dreadful dyspnœa, it was deemed advisable to induce premature labour. In twelve hours she was delivered of a seven months child, which lived for 48 hours. The stethoscopic diagnosis in this case was especially valuable, as it had been proposed to perform paracentesis abdominis to relieve the ascitic accumulation. It is quite unnecessary to enlarge the number of illustrative cases; for what medical man, even of a few years' standing, and of limited experience, could not adduce some from the field of his own observation, to prove the extreme difficulty of determining the existence of pregnancy, even within a month or a week of delivery? patients have been physicked without mercy, deluged with draughts and potions, bored through with trocars, and tortured with dismal forebodings, when the small still voice of the stethoscope might have solved every difficulty, and saved the poor sufferer from all her distress; but even supposing that things do not proceed quite so far as this, who does not know the ridiculous and ludicrous exhibitions which sage ladies and grave doctors have in sooth exhibited and do often

exhibit? at one time the lady vowing that she ought to be, and that she must be in the condition that dear wives wish to be, when they love their lords, and the poor doctor nonplused himself, not knowing what to think, or how to act, whether to believe her who should know, and kindly to flatter the hopes of the anxious would-be father, or to join in the titter and waggish smile of friends and acquaintances, who regularly send their compliments to enquire how Mrs. —— is, and to know when the doctor expects her to be well. Now there can be little doubt, that the awkward ignorance of a medical man in such a case is but too well calculated to expose the profession to the laughter and comic satire of the world; and we need not be told that unless he acquires and retains the ascendant of a respectful authority, derived from superior knowledge over his patients, never can we hope to see medicine regarded as a justly-noble and useful science, and its votaries treated with honor and submission.

No department of the healing art requires more skill, more caution, more of the gentlemanly character, more of sound information on all subjects than the properly educated accoucheur of the present day; cases of the most perplexing difficulty, involving character, fortune, nay, life itself; and of the most frightful danger and responsibility, are frequently intrusted to his charge; his opinion will, and ought to outweigh the opinion or wish of all others; and his conduct may either save or destroy. Let him not therefore neglect any means of adding to his knowledge, and of supplying him with useful and available information; among such means none promises more important results than the use of the stethoscope. When all the ordinary signs of pregnancy are absent, or so muffled and obscured as to afford scope only for conjecture, if the fœtal pulse can be heard but once unequivocally, the nature of the case is obvious, beyond cavil; the auscultator need not heed all the doubts and discordant opinions of others, for what more can he desire, than to have held converse, as it were, with the very being whose existence is disputed?

There are, however, it must be admitted, sometimes difficulties to be encountered in the path of our research; and just as we have seen above, that the sound of the placental souffle may be confounded with other sounds by the inexperienced observer, so may the sound of the fœtal pulse; the action of the maternal heart, aorta, or iliac arteries, when very rapid, may be mistaken for it; a little attention will however, in most cases, serve to discriminate between them; the simple expedient of invariably comparing the beats of the sound we hear with those of the mother's pulse, will generally suffice; if they do not correspond in frequency, we may be quite satisfied that the sound does not proceed from any part of the maternal circulation, but very strict accuracy here may be rather difficult to obtain, when either the mother's pulse is much quickened, or that of the fœtus is much retarded; in such circumstances we shall be assisted in our diagnosis, by remembering that the pulsation of the aorta, or of the iliac arteries has not the double sound of the heart's action, viz. that which accompanies the auricular, and that which accompanies the ventricular contraction; and moreover, that at each stroke, a thump, or impulse is communicated to the ear, sufficient sometimes to raise it from the instrument, a phenomenon which never accompanies the fœtal pulsation. When the vessel becomes aneurismatic, the throb may be so remarkable as to be felt or even heard by the patient

herself. If again the simulating sounds proceed from the heart of the mother, they indeed have the double character of fœtal pulse; we are therefore deprived of this diagnostic mark; but there is another easily available, and sufficiently decisive; in the one case, the sounds become louder and louder, and the impulse more forcible, as we approach the ear to the cardiac region; in the other, they become more and more obscure, and the impulse is altogether wanting. We select one case to illustrate these particulars.

"Mary ——— came into the Lying-in Hospital in labour. I saw her in company with Dr. Darley; the os uteri was slightly dilated, and the membranes unruptured; she was only in her seventh month of pregnancy. On applying the stethoscope, the true fœtal circulation was no where observed, although there were some circumstances which, with a person not paying attention to the distinctions heretofore insisted upon, might have led to error. The placental sound was heard in this patient to the left side, about three inches from the ramus of the pubis; but it partook more of the character of a pulsation than of the usual *souffle*. On applying the stethoscope to the superior part of the uterine tumour, a distinct double pulsation was observable, beating one hundred and twenty in the minute; however, on feeling the patient's pulse at the wrist, it was found one hundred and twenty also, and synchronous with the pulsation in the uterine tumour. On examining the latter a little more closely, it was found to be the extension of the maternal heart's action, conveyed along the integuments by continuity of surface, and was to be traced distinctly from between the fifth and seventh ribs on the left side, extending on the abdomen, and becoming less distinct in proportion to its distance from the region of the heart, until it was lost altogether just above the umbilicus. The above patient was delivered in a few hours after examining her; the child was dead; and exhibited what are ordinarily termed marks of putrescency." 117.

Such are the chief sources of fallacy which the action of the maternal circulation may give rise to; and which may thus embarrass the inattentive auscultator;—a diligent caution may easily avoid them. An occasional cause of error is even the sound produced by the contraction of the abdominal muscles, or of the uterus;—it can however be only the totally unpractised ear which is misled in this way.

Supposing therefore that we have satisfied ourselves that the sound heard is that of the fœtal pulse, it may be asked, if it can proceed from no other quarter, except from the heart itself; Dr. Kennedy answers the question in the affirmative; he states that in some cases the umbilical cord, when placed between the body of the child and the walls of the uterus may be felt through the thin abdominal parietes, distinctly rolling under the finger, and that if the stethoscope be applied over the place, its pulsations may be detected at once, corresponding in frequency with those of the fœtal heart, and therefore not synchronus, with the mother's pulse;—as a matter of course, this sign is equally decisive of the presence of a living child in utero, as the sounds of the fœtal heart; it has not the double beat of the latter, and it may be rendered less forcible and distinct, by a gradual pressure of the end of the stethoscope over the part; by this manœuvre, a souffle may often be caused, just in the same way, as a souffle may be heard in any large arterial trunk, as the brachial or femoral for example, by resting the stethoscope firmly upon it.

These remarks are well illustrated by the following case.

"Visited Mrs. ——— in an advanced state of pregnancy; on applying the hand to the

abdomen, the integuments were found to be remarkably thin, and the limbs were distinctly to be felt through them. Midway between the navel and pubis, the funis could easily be distinguished, prominent, rolling under the finger, and pulsating; it appeared to be kept in contact with the inner surface of the uterus. The pulsation, on the stethoscope's being applied, amounted to one hundred and forty in the minute, corresponding in frequency with the fœtal heart, which was distinctly perceptible in the left iliac region over the ramus of the pubis, and also on the right side, but less distinct. The placental *souffle* was perceptible at the right side, stretching from the neck up towards the fundus of the uterus, emitting eighty sounds in the minute, which corresponded with the maternal pulse at the wrist. What was particularly worthy of attention, however, in this case was the remarkably superficial position of the funis, which rendered its detection by the stethoscope a matter of great facility, and even enabled it to produce a pulsation, which, on careful examination, was perceptible to the touch. Having fixed the funis against the limb of the child, between the finger and thumb of the left hand, I made a gentle pressure with the fore-finger of the right hand on the cord, keeping my ear applied to the stethoscope, the other end of which was fixed over the funis, at a point nearer its insertion into the placenta. The pulsation, which up to the moment of my making this pressure was remarkably strong and distinct, became converted into a *souffle*, and on increasing the pressure it immediately ceased, recommencing the moment I discontinued it. I then removed the stethoscope to the spot where I had discovered the heart's pulsation, and repeated the experiment as above. The action of the heart at first became laboured, but fuller; afterwards it became fluttering and indistinct; and not judging it safe to continue the pressure any longer, lest the child should suffer, I removed it, when the action became regular as before, but somewhat quicker. I had previously placed the stethoscope over the part where the placental *souffle* was observed, but without perceiving any change when pressure was made on the funis as above." 127.

## COMPOUND PREGNANCY.

When two children are present in the womb, they are generally so situated that the head of one is towards the cervix, and the head of the other is at the fundus; consequently the exact position of the pulsating points is not the same; and an expert auscultator may hence form a very probable conjecture of the existence of a double pregnancy; in a few cases Dr. Kennedy has been led to this conclusion, and the accuracy of his opinion was confirmed, by the delivery of twins.* It requires however much adroitness in the use of the instrument, and a long practised ear, to be able to pronounce, with any degree of tolerable accuracy, upon this subject; fortunately no very direct advantages are dependant upon, or to be derived from this prophetic knowledge; and even where a physician had reason to suspect the existence of twins, he should carefully abstain from any allusion respecting it to his patient.

In some of the lower animals, as the cat, and bitch, it is often quite easy to determine the number of kittens, and pups they are pregnant with; this

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* A most interesting physiological fact has been ascertained in these researches; viz. that the pulsation of the two fœtal hearts, is by no means synchronous; in one case, on the left side, the heart was heard to beat 130 times in the minute, while the other heart on the right side beat 145 times.

arises from the circumstance of the fœtuses being more apart and distinct from each other; our author has never heard the placental souffle, in any, except in the cow. While we admit that in the generality of cases of double pregnancy, it is an object of little moment to know beforehand their true nature, circumstances may occasionally occur, when such knowledge may be of much practical value; suppose that one child has come away, and we are in doubt whether a second remains in the uterus: instances are on record where the second delivery did not take place for several days, weeks, and even months, after the first; in the case related by Dr. Maton, in the 4th volume of the Medical Transactions, three months elapsed between the births; both children being born alive, and living for some days.

Dr. Ryan informs us of a woman who travelled thirty miles after her delivery; she complained much of swelling of the abdomen; and upon examination, another child was found in utero. Sometimes, although rarely an abortion of one of the twins takes place, and the other remains behind for four or five months, till it attains its perfect growth, and is born at the full period: now in all such cases, we may arrive at far more decisive certainty of information by means of auscultation, provided the retained child be alive, and sufficiently developed, than by any other method hitherto followed.

### Complicated Pregnancy.

This term is employed by the French authors to designate the co-existence of disease, either in the uterus itself, or in some of the adjacent structures, with pregnancy; thereby rendering the discovery of the latter state obscure, and often most perplexingly uncertain. The most experienced accoucheurs have been embarrassed; what between the reports and assurances of the patient, the enormous distention of the abdominal parietes, thus precluding any satisfactory examination, and the variable character of the symptoms, which one day simulate those of gravidity, and on another day are all referable to an accumulation of wind or of water, it may be next to an impossibility, accurately to pronounce upon the true nature of the case. Suppose, for example, that there is an inordinate quantity of the liquor amnii, so distending the uterus, that it occupies almost the whole abdomen, or that the uterus is filled with air, or that a dropsical effusion has taken place into the bag of the peritoneum, or that the intestines become blown out with air, or that this air is collected exterior to them, constituting the disease of "tympanitis abdominalis," or lastly that along with pregnancy, there is diseased enlargement of one of the ovaries, a complication indeed rare, but occasional, it may defy the nicest tact of the fingers, and the shrewdest sagacity of multiplied experience, to say positively whether our patient be in the family way, or not. If tympanitic inflation be the cause of the perplexity, we may indeed observe that the size of the abdomen varies much at different times, that it is more equally diffused, and often more conspicuous in the epigastric and umbilical regions, than over the site of the uterus, that the belly on percussion gives out a sonorous drumlike sound, and if examined with the ear, a loud intestinal rumbling, or borborygmus may be heard. In such case, we shall do well to premise a dose, or two, of a warm purgative, and none, according to our author's experience, is so efficacious, as a mixture of castor oil and spirit of turpentine; after a free

evacuation of the bowels, the stethoscope may now discover with facility the placental souffle, or fœtal pulse.

When pregnancy is complicated with ascites, the treatment is much more difficult and precarious; but all will depend upon the accuracy of the diagnosis we have formed. In the name of humanity, let no more murders from ignorance be committed. We have already alluded to one case, where a practitioner was about to perform paracentesis abdominis, while ignorant of the co-existence of pregnancy. Sir. A. Cooper has reported a similar case; and Dr. Lowder mentions one, in which the trocar was actually plunged through the distended urinary bladder, and uterine parietes, into the head of the child!* But even when cutting and boring instruments are not employed, much and lasting injury may be committed by the exhibition of drastic purging and diuretic medicines during the state of gestation; whereas if the physician were assured of the existence of this, his practice would be more rational, and far more successful; by gentle remedies he would endeavour to evacuate the water, or at least to prevent it from increasing; and were paracentesis indispensably necessary, the operation might be done, not only with perfect safety, but with success. Our limited space forbids us from expatiating at a greater length upon this part of our subject, and from alluding here to some other complications of disease, which may exist simultaneously with pregnancy, and mask or conceal all the ordinary symptoms, which indicate such a state. This we regret the less, as we shall be led to the consideration of some of these in the following section, which treats of

### PSEUDO-PREGNANCY, THE "GROSSESSE APPARENTE, OU FAUSSE" OF THE FRENCH AUTHORS.

Under these terms are comprehended all cases of actual deception and of wilful simulation, or pretence, as to the existence of pregnancy, when that state does not exist. It will be useful to consider this question in a threefold point of view, according as there may be, either some physical and appreciable phenomena, in the body of the female, calculated to mislead her, as well as her attendants; or on the other hand, mere longing whims, and foolish fancies, which like the delusions of insanity take and keep possession of the mind of the invalid, in spite of all reason,—or lastly an intentional forgery of some of the symptoms, for the purpose of imposing upon credulity, or of evading the retribution of avenging justice.

In the first class we may enumerate ascites, tympanites, ovarial enlargements, moles and other growths within the womb, amenorrhœa, and hysteria, &c. The morbid developments of the ovaries are among the most frequent and perplexing of these simulating diseases; there is such an intimate sympathy of action and of organic, or vegetable sensibility between these organs and the womb, and between this centre of the female generative system, and the rest of the animal frame, especially the mammæ and stomach, that affections of the one often induce, and still more often imitate those of the other.

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* Dr. Gooch in his excellent work on the Diseases of Women, tells us of a patient who was taken to the operation-room of a well known hospital for the purpose of being tapped, to evacuate a supposed ovarian dropsy; fortunately she was remanded for further examination, and before the operation day she brought forth a child.

Our patient shall have the morning sickness, the dark-encircled eye, the tumid breast, the distinct areola round the nipple, the full stomach, the absence of her monthly indisposition, and often, too, the feelings of something moving within her, and yet, alas, the true cause of all these delusive symptoms may be the early growth of an incurable disease. Medical men cannot be too cautious in these cases. We are told by Valentin, that at Paris, in 1718, the Demoiselle Famien had a charge of pregnancy and child-murder brought against her, and the issue proved that she was merely labouring under ovarian dropsy. It is not our intention to enumerate the ordinary distinctive symptoms of this disease, for they are well explained in all the common text-books of mid-wifery; but as our leading object, in the present article, is to illustrate the grand importance of auscultation in a variety of obstetrical cases, we shall confine our remarks on the diagnosis of ovarian enlargement, to the signs which are appreciable by the ear. As a matter of course, no fœtal pulsations can ever be heard, for there is no independent circulation within the abdomen; not so, however, with the absence of all souffle, or whizzing pulsatory sound. Those readers who have perused attentively the preceding pages, and the interesting Memoir by M. Bouillaud in our last Number, will be prepared to understand, how any tumours in the belly may give rise to the production of certain blowing, sawing, or rasping sounds from the adjacent large arteries—they will remember that, whenever a moderate pressure is made over the trajet of any considerable artery, a bruit is heard with the stethoscope. Such, therefore, is the explanation which may be given of the souffle, which is sometimes heard at certain parts of the abdomen, when any abnormal growth is pressing at all upon the aorta or iliac arteries. Our object must, therefore, be to remove, if possible, the pressure, while we are listening: this may occasionally be done by examining our patient in different positions, or by tilting up or pushing to the side the tumour, so as to dislodge it, for the time, from its usual place. If the bruit disappears upon employing any of these manœuvres, then we have reason to suspect the extraneous cause of the phenomenon, or at least our suspicions as to the non-uterine seat of the disease receive confirmation. The longer, too, such a state of things as usually accompanies ovarian disease has existed, the more probable will be the inference, that it is altogether independent of pregnancy; and the farther advanced in life our patient is, the greater will be the chance of the deception. But of these advantages we are quite deprived when the case occurs in a young girl, who, perhaps, has exposed herself to the chance of impregnation—in whose abdomen no distinct or isolated swelling has ever been perceptible, and in whom the only well-marked symptom has been the absence of the menstrual flow. An example from our author's experience will illustrate the subject better than any category of our remarks.

"Catherine ———, ætat. 18, an unmarried girl, was sent into the Lying-in Hospital by the directions of an eminent surgeon in the city, by whom she was pronounced pregnant, and in active labour. On paying the evening visit to the labour ward, our attention was attracted by the vociferations of this patient, and the apparent violence of her labour, in which she outvied all the patients in the ward, several of whom were near being delivered at that moment. On pressing the hand over the abdomen, it appeared distended and tense, but the limbs, or body of the child could not be distinguished through the parietes. This circumstance excited some suspicion; and on making a vaginal examination, the os uteri was felt high, and placed so nearly beyond reach, that we could not with certainty

pronounce as to its enlargement. The stethoscope was now applied, when no placental or fœtal sound could be any where detected, but the intestinal murmur was evident over every part of the abdomen. On resting my cheek on the parietes, and allowing it to remain there for some time, as the abdominal muscles were in violent spasmodic action, they became gradually fatigued and relaxed, and the spine was distinctly perceptible without any uterine tumour intervening. After purging this patient freely, a copious menstrual discharge set in, which, with a free evacuation of fæces and wind from the bowels, reduced her abdomen to its natural state, and left not a vestige of pregnancy. The account this girl gave of herself was, that her menses had ceased for some months, since when she had been subject to constipated bowels and occasional sickness of stomach; that she had suffered from slight attacks of abdominal pain with spasm, at each return of the period when her menses should have appeared, but that these symptoms had set in with such violence the day before her admission, as to lead those about her to suspect that she was in labour, an opinion which, as we have seen, was corroborated by the medical gentleman who saw her. This spasmodic action of the muscles, attended with abdominal pain, in a great degree resembling aggravated colic, is by no means an unfrequent accompaniment of amenorrhœa, as several such cases have occurred to me. This possibly may have been the cause of loss of character, in more than one instance. Free purging, with the hip-bath, and in very aggravated cases the use of the lancet, is the practice we have had recourse to. In the case of a maid servant, seen some months since, the details are almost identical with those just mentioned, and there was considerable difficulty in convincing the girl's mistress that she was not in labour, when this spasm and pain set in; more particularly, as she had previously a strong suspicion of the girl's being pregnant, from the amenorrhœa and sickness of the stomach under which she suffered." 168.

At the period of the usual cessation of the catamenia, between the fortieth and fiftieth years of age, many females allow themselves to be imposed upon as to their actual condition. Unfortunately for their own sakes, the mere hope and wishing are often the original grounds of their expectation; and the human mind is of that pertinaciously self-creating, self-deluding character, that if once permitted to dwell upon a mere dreamy vision, it soon will turn fancy into reality, and will persist in embodying its own phantom figures. A cautious and experienced physician will always be somewhat reluctant to assent to the fond imaginings of ladies, at a certain period of life; he will generally find that the menses have been irregular in their return for a much longer time than the supposed period of gestation—that they have been absent for several months occasionally—that then they returned either very profusely or very sparingly; similar irregularities may be also observed in the functions of the stomach—the morning sickness has been felt, perhaps, every morning for some weeks—it then leaves, and resumes its annoyance after some time; besides, it is very apt to intrude itself at other times besides the morning, and often it is accompanied or followed by a relaxed state of the bowels, after the free evacuation of which our patient is vastly better, feeling light, comfortable, and cheerful. In short, there is a general languor and inactivity of the abdominal and pelvic viscera—they seem to be oppressed with a slow-moving circulation, and probably there is venous congestion, especially of the liver, spleen, and uterus. However this may be, true it is that, generally, a very few brisk, warm purgatives, to act vigorously on the bowels and urinary organs, with total abstinence from malt liquors, will often effect a most miraculous improvement, although they cruelly disappoint the hopes of the longing parents, who, like the old

Commodore Trunnion and his affectionate spouse, see them all dissipated in an astounding tornado, or cataract of gushing water!!

But we must not carry our incredulity too far, and set down every case of supposed pregnancy, in rather elderly females, to mere phantasies of the mind. There would be no difficulty in adducing a number of cases of genuine conception and utero-gestation after the forty-fifth, fiftieth, and even a year or two later; and there sometimes appears almost an effort on the part of the system to be young again, just before the period which is usually called the change of life.

There remains one other form of disturbed menstruation, which often simulates, for the time at least, some of the phenomena of pregnancy. When menorrhagia is attended with severe forcing pains in the abdomen and back —when clots and apparently-organized membranes are discharged, the ready suspicion is, that an abortion has taken place; and frequently it is a matter of not a little difficulty, to persuade the friends of the female that the symptoms are not those of interrupted pregnancy, and that the expelled substance is not a regular birth; but let not any medical man be ignorant of the possibly-true nature of the case, and whenever there is room for doubt, his sacred duty ought ever be, to lean to the interpretation of charity. If such and such occurrences have happened to the observation of others, why may they not equally present themselves to ours? Morgagni was one of the first authors to point out, that the unimpregnated uterus will sometimes form on its inner surface an organized layer, which, assuming a triangular form, correspondent to the figure of the womb, may be subsequently expelled with labour-like pains. Even moles, or those fleshy fibrous formations which used to be considered as invariably the result of blighted ova, are occasionally developed within the virgin uterus; and their expulsion may be attended with profuse hæmorrhage and with severe suffering. The possibility of such an occurrence ought never to be absent from the mind of the medical man, and the more imperative is the duty, because almost all the symptoms of pregnancy may be present during their formation. The same remark is applicable to the existence of hydatids within the uterus; most of the cases, indeed, of these singular developments are reputed to be cases of pregnancy, and their true nature is detected only when they are thrown off; and the mistake is the more readily committed, as by far the greater number of cases occur in married females, and the vesicular masses are often co-existent with a blighted ovum.

Probably most of the cases of hydrometra, or hydrops uterinus, occurring in the unimpregnated uterus, are really and truly of a hydatic nature, one large vesicle occupying the whole of the cavity. An interesting example of this rare disease is thus detailed.

"It occurred in the person of a confidential attendant of Lady ———, whom I was desired to see by the late Dr. Evory. She was reported to be in a very dangerous state, from a labour of nearly three days' continuance, which had not then terminated. I found her exhibiting all the appearance of a woman worn out with long continued and unavailing labour, her pains recurring at irregular intervals, and she herself much exhausted by the force and exertion used when they were present. Having passed my hand over the abdomen, it did not give the idea of that of a woman in tedious labour, as, although it was certainly very much distended, fully as much so as that of a pregnant female at the ninth month, yet the body or limbs of the child could not be discovered. The swelling was

circumscribed like that of an enlarged uterus, and an obscure fluctuation was observed. On examining by the vagina, the os uteri was found undilated, but the neck evidently developed; and fluctuation was perceptible here, although, on tilting up the uterus, no *abattement* could be distinguished. This patient's limbs had been slightly œdematous a short time before, but the œdema had disappeared. I directed her to be put into a warm bath, and gave her some calomel and jalap, which operated in a couple of hours. Whilst she was straining at stool, a sudden discharge of a reddish-coloured watery fluid poured from the vagina; and, on introducing my finger shortly after, I found the os uteri very slightly gaping, and the fluid passing freely from the opening. The uterus felt flabby for some time, but afterwards contracted and descended into the pelvis. No solid substance whatever came away, although a discharge somewhat resembling the lochia kept up for some days. Foderé mentions a somewhat similar case (vol. i. p. 476,) in which a young woman was accused of infanticide from this cause." 179.

It is not uncommon to find an immense accumulation of water, with a small blighted ovum, in females whose constitutions have been tainted with the syphilitic poison; but, as a matter of course, such a case is widely different from that we have just reported. Having thus shortly glanced at some of the more common causes of the first class of pseudo-pregnancy, viz. of that in which the patient and her friends are misled by actual or bodily deceits, our attention is next drawn to those curious cases, where the deceit or illusion resides only in the brain of the individual herself—when she thinks, and will think, and is resolved to think that she is pregnant, although, perhaps, not one symptom of that state ever has been present. Not unfrequently, indeed, are the catamenia irregular, or even absent during the time, and then this very defect may give rise to certain feelings in the female breast, which prompt her to believe that she has conceived; and if the patient be hysterical, and be subject at times to flatulence, or to abdominal pulsation, we can, without difficulty, account for some of her strange vagaries; but then such a case belongs rather to the former than to the present section. An exquisite case of the *genuine imaginary* and *purely ideal* pregnancy is given by our author.

"Mary Connor, ætat. 32, who has had two children, the last nearly nine years since, supposes herself pregnant, in which state she has been according to her idea for the last seven years. She has no symptom whatever of pregnancy, not even enlargement of the abdomen; she says she quickened at the fourth month, since which she has constantly felt the motions of the child up to the present period. States that, at the expiration of nine months from the time at which she became pregnant, symptoms of labour set in, which lasted for three days, and went off again: that at the expiration of eighteen months, she was again attacked with labour, and so on every nine months until within the last two years. Her menstrual discharge has continued to occur regularly every third week since the nursing of her last child. She called on me for the purpose of being delivered by instruments, for which she is very anxious; as she says there is no chance of her being delivered without them. My endeavours to convince her that she was not pregnant were of no avail, as she preferred a similar request to another practitioner, who afterwards informed me of it." 182.

Our readers will find an account of a yet more curious case, in a former Number of our Medio-Chirurgical Journal, for Sept. 1824.

Perhaps the most feasible, and certainly the most easily-applicable, mode of explanation of such singular fancies, is to refer them to a sort of partial

insanity, or of monomania; they most assuredly seem to be the offspring of a disturbed, and not of a healthy mind; and if by the terms partial insanity, or monomania, is only meant, an aberration of reason on particular subjects, while the faculty is sound upon others, we cannot refuse to class the fond delusions of women, of which we have been speaking, among the catalogue. Whether phrenology be true or not, it will not be denied that the phenomena of such cases may be accounted for, more easily upon its principles, than upon those of any other psychological system: according to its tenets, the organ of philoprogenitiveness is morbidly active.

### Simulated, or Pretended Pregnancy.

The motives of women, in wilfully, and with perfect knowledge of the deceit which they are practising upon others, feigning themselves to be pregnant, are various; sometimes they are prompted to it by mere caprice, by vanity, or by the desire to regain the estranged affections of their husbands; at other times, it is one of the many tricks of begging to extort alms, and modern history has shewn us that religious fanaticism will borrow its aid; and lastly it is not unfrequently attempted by condemned criminals, as a plea in bar of immediate execution.

It may be worth while to allude for a moment to the notorious case of Joanna Southcote, who managed to play her cards so cleverly, that she actually persuaded a number of medical men to vouch for the truth of her ludicrous lie. Dr. Reece was quite as satisfied of Joanna's pregnancy, as Joanna was herself; and what grounds of belief are more rational, than those of our senses? Dr. R. had felt the motions of the child!! Dr. John Sims had not it would seem, such a delicately discriminating tact in his fingers; for not only did he not feel the child to move, but he presumed to announce in the public papers, that Joanna's big belly contained no child at all. It must be remembered that Joanna's chaste coyness was so sensitive against any rude curiosity of men, that she would never allow a vaginal examination; her warning spirit had commanded her not to submit to such an indecency. Well, year after year had passed away, and no promised Shiloh appeared; the inspiredly-pregnant lady began to droop and languish, and little wonder was it, for already did she number 64 years of age. So full of faith were her disciples however, that they, like good Mussulmen, doubted nothing, and the learned Doctor having some idea of performing the Cæsarian operation, asked her whether in the event of an attack of apoplexy, he should not instantly extract the child in this way. [It was indeed a pity that my father Mr. Robert Shandy was not alive, for doubtless he would have attempted to convince Joanna, that gastrotomy is the only method, by which a child can possibly be delivered, without any injury to the delicate network of the brain!] As it was, Joanna did not approve of the proposal, when mentioned by Dr. Reece, and the prophetic physician's hopes of being the arch-actor upon so splendid an occasion, were irretrievably dissipated.

Upon dissection, it was found that the tumor, which had been mistaken for the impregnated uterus, was the urinary bladder, which Joanna had the power of keeping distended much longer than ordinary mortals can do, and that the uterus itself was actually smaller than it is usually even in the virgin state!!

The last and most important set of cases remains yet to be mentioned; we allude to those in which the unhappy criminal pleads the existence of pregnancy, to stay the immediate punishment of her guilt; and awful indeed is the responsibility which is incurred by those, who are appointed to decide upon the truth, or falsity of the averment. The woman swears upon her oath that she is with child; it may be a wilful lie, or it may not; she may have reasons to think that she really is so; and difficult in all, and utterly impossible in some cases, is it to disprove these beyond all doubt. We have seen by the preceding pages, that in other instances of alledged pregnancy, we invariably avail ourselves of the account which our patients give of their state and of their feelings, and rarely will a medical man presume, to pronounce upon its existence unequivocally, when the female, who may have borne children before, has no suspicion of it. Equally reluctant must he ever be, to assert boldly its nonexistence, during the early months, if his patient believes and reports otherwise; in such a predicament is he situated, when called upon for his opinion, as to the condition of the convicted criminal; he has the solemn oath of the party staring broadly before his eyes, and hardy indeed must he be, who without any wavering will assert its utter falsehood. We do not mean by these remarks to deter the physician from intrepidly doing his duty; we do not advise him to speak against his conviction, even for the sake of that gentlest virtue 'mercy;' justice has a higher claim than humanity, and truth must be preferred to compassion; but we earnestly adjure him, to ponder the subject long and well, to give the benefit of every rational doubt to the prisoner, and only upon the clearest, and most irrefragable evidence, to dare to stamp a negative upon the wretch's affirmation. The following case is adduced to show the exceedingly painful duty which is sometimes imposed upon a medical man, and at the same time as an illustration of the murderous ferocity of our law in this particular. The case occurred to Dr. Franklin of Limerick.

"March 16th, 1831, Margaret Mackessy, ætat. 35, wife of Edward Mackessy of Aharoulk, was tried before the Hon. Baron Pennefather, for the wilful murder of Mary Mackessy, her mother-in-law. It was a case of circumstantial evidence. The principal witness for the prosecution was Honora Mackessy, a little girl eleven years of age, the niece of the prisoner's husband. The ill-fated woman was, after a most patient and deeply interesting trial, found guilty of the crime, without the least hesitation, by the jury: and the learned Baron sentenced her for execution on the succeeding Saturday, and her body for dissection. After sentence was pronounced by the judge, the unfortunate woman pleaded pregnancy, and his lordship directed, that a practitioner of midwifery should be at once procured, when I was sent for, and directed by the court to examine the convict; his lordship at the same time, laying down as the law, that *pregnancy alone* without *quickening* of the *child*, would not be sufficient ground for staying the execution, and directing me to examine minutely as to both these points. The convict was removed from the dock to a room adjoining the court, where I examined her. She admitted to me that she had been suckling a child to within a month or six weeks of her being sent to prison. That she had menstruated once after she had weaned the child, and that from the time she had so menstruated, to the day of her conviction, it was near two months.

"This was merely her own assertion; but though I minutely questioned and examined her on the signs and symptoms of pregnancy, she refused to give the required answers, and merely contented herself with the assertion, that for two months she had not menstruated; but at the same time she admitted she had not quickened. Although I gave her the benefit of her assertion, still upon a careful examination of the abdomen, I was clearly satisfied that she had not quickened. She was then reconducted to the dock, and

after being sworn, I was examined by Baron Pennefather; when I stated my opinion to be, that though the convict might be young with child, which was very doubtful, as it was supported solely by her own declaration, that I was of opinion she had not quickened; and further added, that this opinion as to quickening was confirmed by the admission of the convict herself. Under these circumstances the Baron did not stay her sentence, and she was executed on the 19th. I waited with much anxiety the result of the *post mortem* examination, which was conducted the same day at the County Infirmary, in presence of six professional gentlemen, when it was ascertained beyond all doubt that she was not pregnant." 191.

Here then is an instance of the solemn interpretation of the law of this land, by a judge upon the bench; of the law which, to use the forcible language of our author, condemns to death a child in the fifteenth week of its existence, while a child in the sixteenth (this being the usual period of quickening) is saved from such an unjust and unmerited fate!! The thing indeed is monstrous; and tenfold more monstrous now, than at the time of enactment; for then it was the common belief that fœtal life did not commence until quickening; but no such apology can be alledged for legistators of the nineteenth century; and yet not ten years back, the following enactment was guided, in the distinction of its clauses, by an utter falsehood. The 43d section of the 9th Geo. IV. c. 31, provides—

"That if any person, with intent to procure the miscarriage of any woman, then being quick with child, unlawfully and maliciously shall administer to her, or cause to be taken by her, any poison or other noxious thing, or shall use any instrument, or other means whatever, with the like intent, every such offender shall be guilty of felony, and being convicted thereof, shall suffer death as a felon: and if any person, with intent to procure the miscarriage of any woman, not being or not being found to be then quick with child, unlawfully and maliciously shall administer to her, or cause to be taken by her, any medicine or other thing, or shall use any instrument or other means whatever, with the like intent, every such offender, and every person counselling, aiding, or abetting such offender, shall be guilty of felony, and being convicted thereof, shall be liable, at the discretion of the court, to be transported beyond the seas, for any term not exceeding fourteen years, nor less than seven years, or to be imprisoned, with or without hard labour, in the common gaol or house of correction, for any term not exceeding three years; and if a male, to be once, twice, or thrice publicly or privately whipped, if the court shall so think fit, in addition to such imprisonment." 265.

The meaning of the words "quick with child" are settled by a decision of Judge Laurence in the case of Rex *v.* Philips; after hearing the evidence of the medical men, he decided that a woman could not be considered quick with child, until '*she had felt*' the child alive and quick within her; Whose assertion then can be taken, but that of the culprit alone? Need we say a single word to show the worse than Vandal ignorance, and criminal recklessness, of those who uphold the present law? But, as if reason was laughed at in the framing of some statutes, and as if legislation and jurisprudence were surely the antipodes of common sense and consistency, the strange anomaly has been perpetrated, that by the law of real property an infant "en ventre sa mere' may take an estate from the moment of its conception, and yet be hanged four months afterwards for the crime of its mother. It is however but justice to acknowledge that the same rigorous interpretation of the law is not always acted upon, as in the case, at which

Baron Pennefather presided. A woman was tried at Carlow, on the 19th of March, 1830, before the Chief Justice of the King's Bench, for the murder of her husband, and found guilty; she pleaded pregnancy in stay of immediate execution, and a jury of matrons was impanneled to try the truth of her plea. The result of the deliberations of these matrons! (some of whom were unmarried, and not one of whom had ever attended a case of labour) was, that "they could give no opinion on the subject—some of them considering that the culprit was, others that she was not with child." Fortunately alike for justice and humanity, Drs. Porter and Byrne were directed to examine the woman. She stated that she had quickened: this they did not believe—but they admitted that there were sufficient grounds to justify the suspicion of pregnancy, advanced probably to 1½ or 2 months. Knowing, however, the extreme uncertainty of any data, they declined to swear on the subject, and suggested to the Judge, that the prisoner should get the benefit of their doubt. In this, he humanely concurred with the physicians, and granted a respite for a time. This woman was delivered of a male child on the 10th Sept. and died on the 22d of October following in jail.

The preceding case, among others, is a memorable instance of the beautifully lenient and enlightened spirit of English law. On a subject involving life and death, surrounded with difficulties and enveloped in uncertainty, the arbitration rests with a jury of twelve women—women, too, taken sometimes from the lowest dregs of society, such as frequent the purlieus of a court of law, and are akin to the witnesses "with the straw in their shoe," ready to say any thing—ready to swear to any thing? Let us hope that this blot of ignorance and of inhumanity may soon be wiped from our criminal code, and that the same virtuous and distinguished zeal which prompted three of our medical brethren, at a late assizes in Norwich, to step forward to proclaim the ignorant falsehood of the jury, and the iniquity of the verdict, may animate the breast of every member of our profession. A woman is condemned, at Norwich, to death on the 3d of March—she pleads pregnancy in arrest of the execution; 12 matrons are directed to try whether she is pregnant with a "*quick*" child. After an hour's deliberation, they decide that she is not "quick with child," and the prisoner is, therefore, ordered for execution. Messrs. Scott, Crosse, and Johnson, eminent surgeons of the place, here nobly interferred; they examined the woman, and found her not only pregnant, but actually quick with child. Baron Bolland, the presiding judge, immediately reprieved her until after the delivery. On the 11th of July, she was delivered of a large healthy female child. Before leaving the interesting subject of the propriety or not, of ever involving the life of an innocent being in the guilt of its mother, we are tempted to lay before our readers the following extract from the notes appended to the present work, by an eminent barrister, Mr. Smith. The suggestion appears to us to be an exceedingly good one, or, at all events, it would effect a mighty improvement on the present existing enactments of our statutes.

"If, however, any given period of pregnancy must still be fixed upon as determining the guilt of the offender, it would, perhaps, be more consistent with sound sense, to fix that period at the end of the seventh month of pregnancy, and to punish with greater severity the attempt to expel the fœtus from the womb, at a time when it is not capable of individual life, than when greater development and growth have rendered its separate

existence possible. Such a distinction at all events, would afford surer grounds for a satisfactory conclusion, than the uncertain test which has been adopted in the statute." 267.

There is still one other case, in which a woman may intentionally feign pregnancy, and that is, when the succession to property is concerned. On the death of her husband, or of any other testator who may have left a legacy to her offspring, and, failing that, to the next heir, or to a charity, she, conscious all the time of the deceit which she is practising, may assert that she is with child, in order to gain time for the perpetration of some other fraud, as, for example, the substitution of a child not her own. The law, however, steps in here, and supplies a remedy; the next heir, whether he be heir-at-law, or merely a devisee for life, or intail or in fee, may obtain the issue of a writ "de ventre inspiciendo," for the purpose of inquiring into the truth of the plea. The writ is granted by the Court of Chancery, and issued to the sheriff, who summons a jury to ascertain the reputed pregnancy; and if a verdict favourable to the woman be returned, means are taken to prevent all male access until the period of pregnancy has expired, when, if the plea prove to be unfounded (forty weeks, according to Britton, being the longest time allowed; for, after that period, the pregnancy is declared illegitimate), the next heir is entitled to demand immediate possession of the property; and among the old lawgivers, severe penalties were even inflicted on the offending female.*

It is important to know that, in an inquiry under the writ "de ventre inspiciendo," whether or not the female be pregnant, the result does not depend upon the fact of quickening having taken place; the sheriff is directed merely to cause the woman to be examined, and to return "utrum impregnata sit, necne;" and the fact, that the writ commences by assigning as a reason, that "ipsa falso dicit se esse pregnantem cum non sit," seems to shew, that the mere declaration of the widow herself would not be sufficient evidence of pregnancy, if unsupported by any circumstances, whence their probable truth or falsehood might be ascertained.

We must now draw to a close, leaving a few subjects of Dr. Kennedy's book unalluded to. It is one of sterling merit, of great practical utility, and better calculated to enforce the general adoption of auscultation, in obstetrical pursuits, than any work which has issued, either from our own or from the foreign medical press.

It is, indeed, gratifying to remark the zeal, the industry, and the high professional ability which so much distinguish many of our brethren in Dublin. Dr. Kennedy has proved himself one of the very ablest among them, and has conferred a great practical benefit on the public at large, by the publication of his excellent observations.

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* The direction contained in the writ is in the following words:—

"Tibi præcipimus quod assumptis tecum duodecim discretis et legalibus militibus et duodecim discretis et legalibus mulieribus de comitatu tuo, in propria persona tuâ accedas ad præfatam R. et eam coram præfatis militibus videri et diligentur examinari et tractari facias pubera et ventrem in omnibus modis, quibus melius certiorari poteris utrum impregnata sit necne. Et si ipsæ mulieres ipsam R. impregnatam invenerint: tunc diligenter inquiras ab eis de tempore quo ipsam crederint fore paritura. Et inquisitionem quam inde feceris, scire facias justiciariis, &c."

We had nearly finished our review ef Dr. Kennedy's book, when the very able and interesting paper on the Signs of Pregnancy and Delivery, by Dr. Montgomery, Professor of Midwifery to the King's and Queen's College of Physicians in Ireland, came to hand. Our notice of it must, therefore, necessarily be a brief one; and, to avoid all repetition, we shall confine our remarks chiefly to two very important, and still very obscure topics, which well deserve the minute attention of every obstetrical physician—we mean, the history of what are usually called moles, or false conceptions, and that of a structure which has given rise to even a greater contrariety of sentiment —the corpora lutea of the ovaries.

## MOLES, OR FALSE CONCEPTIONS.

The term mole has, unfortunately, been applied to a variety of formations, differing widely and essentially from each other, not only in their appearances and texture, but also in the causes which have produced them. Had but a proper anatomical investigation been employed in the inquiries of medical men upon the true nature and origin of these bodies, the confusion and uncertainty which have hitherto, and do still perplex us, might have unquestionably been, in a great measure at least, removed. A blighted ovum, the remains of a placenta, masses of coagulated and apparently-organized, blood, and even sarcomatous and other tumours of the womb, have all been classed under the appellation of "mole."

It cannot, then, be surprising that physicians have differed much in their opinions, whether these formations are in all cases consecutive to, and the results of, impregnation, whether they may be developed within the virgin uterus. The weight of trustworthy medical authority leans certainly to the former of these opinions; but, while it is admitted on all hands, that not only coagula of blood, by remaining for a length of time in the womb, may assume a globular form, corresponding to the containing cavity, and may gradually lose all the colouring particles, so that nothing but a fibrous texture remains, but also that the unimpregnated organ throws off, under certain circumstances, membranous formations, it will require the utmost caution, as well as an intimate knowledge of the structure and appearances of other uterine contents, to pronounce decidedly, in all cases, whether they be truly the result of conception or not. If, indeed, any real remains of the embryo itself, or of its placenta, are discovered, then the question is settled. Voigtel has rightly remarked that, in some moles—

"From an originally imperfect developement of the ovum, or an injury to the fœtus at its first formation, it appears either as a shapeless mass, or *the fœtus itself is completely destroyed*, and *only its membranes and the placenta* continue to grow for a time and get thickened and fleshy, or filled with fluid only, or form membranous, fibrous masses, or hydatids, or assume other unnatural appearances." 22.

A minute and very delicate examination of the discharged mass, under the surface of water, is the only method by which we can hope to unravel and shew the anatomy of its structure; and Dr. Montgomery, from repeated experience, assures us, that if we will but take the necessary trouble and time, we shall generally be enabled to decide upon its true nature. The mole is to be first very carefully cleansed from all adhering blood by

repeated ablutions, and the dissection is to be performed with delicate, blunt instruments. His observations are so interesting, that we shall give them in his own words.

"If in the progress of such an investigation we discover a fœtus, or even a part of one, it would of course be decisive; but this may not be the case, and yet we may recognise all the other component parts of the ovum presenting several structures which are never produced by disease.* First, we may have the decidua covering either partially or completely the substance under examination, distinguished by its soft, rich, pulpy appearance and strong red colour, its external or uterine surface rough and unequal, and when well freed from the coagulated blood, exhibiting numerous small round foramina,† capable of admitting a pin: its internal surface is smooth, and exhibits little or no appearance of these openings. This coat may be found attached to the ovum, or entirely torn away and separated from it during its expulsion; but in either case these characters mark the true decidua, and are not found in the products of disease. Within this outer coat another is found immediately investing the membranes of the ovum, the outer surface of which is smooth, and its inner completely filamentous, receiving the beautiful arborescent villi which cover and shoot from the surface of the chorion, forming the bond of union between it and this inner decidua. The discovery of these arborescent villi or capillaries is proof positive of the nature of the product, as they are never found presenting like characters, except upon the chorion or uterine surface of the placenta." 21.

This description, it will be understood, applies in a particular manner to what may be called the "embryotic moles," those, namely, which are produced by a blighted or otherwise imperfect ovum; and if the accuracy of its details, especially as regards the decidua membrane, may be altogether depended upon, a ready and very convenient method of distinguishing the mole of conception from the casual and independent mole is furnished. But the very circumstance of the decidua being, in many cases, retained, and the surface of the mass being then quite smooth and glistening, and devoid of the shagginess which is characteristic of this membrane, is a sufficient proof that we cannot with safety rely on one feature alone. A case which very lately came under our notice, is worthy of notice on several accounts.

A lady, the mother of six children, was seized with the symptoms of threatened abortion, in consequence of the jolting of a carriage on an uneven road. By rest and the use of refrigerant medicines, they were checked for a time; but after the lapse of two weeks they returned, and as the patient's health began to suffer much, and the quantity of blood which, at repeated discharges, had been lost, precluded the hope of ultimately preventing the miscarriage, it was determined, in consultation with one of the most eminent accoucheurs in London, rather to accelerate than to endeavour to retard it. The os uteri was open enough to admit the point of the finger, and a thin, mucous discharge dribbled from the orifice. An elastic gum bougie was, therefore, introduced, and, being pushed up into the cavity of

* "See a case related by Mr. Lemon in the Edinburgh Medical and Surgical Journal, vol. xi. p. 96. The writer has in his museum more than one specimen illustrative of this absence of the fœtus where the other parts of the ovum exist."

† See Hunter's plates of the gravid uterus, xxix. fig. 11, and also plates xxviii., xxx., xxxiii., xxxiv.

the womb, was permitted to remain there for twenty hours; on the following day a larger one was substituted, and a brisk purgative administered. During the operation of the medicine, after some sharp pains felt in the region of the womb, the patient was sensible of something having come away from her. It was examined and found to consist of four sanguineous lumps, which had apparently been joined together and formed a globular mass, but which had been torn during the expulsion. These lumps were about an inch thick, and had the appearance of densely coagulated blood, from which, in some parts, the colouring matter had been removed, so as to leave only the fibrous portion. The outer or uterine surfaces were smooth and uniform; the inner presented a net-work of fibrinous fasciculi, not unlike that of the columnæ carneæ in the ventricles of the heart.

On introducing the finger into the vagina, the mouth of the womb was found hard and jagged, and not large enough to permit it to be passed into its cavity; so that no part of a fœtus could be felt. The patient being now comfortable, enjoyed some hours of refreshing sleep, and upon visiting her next morning, we found her better in every respect. The impression upon our minds was, that the womb had emptied itself of all its contents, and that in short, there had been a false conception. Twenty-four hours afterwards, a fœtus, of about three and a half months, with the cord and placenta, adhering and quite entire, but with no distinct membranes, was expelled with very little pain.

We have adduced this case to prove that we must not always expect to find the villous and shaggy surfaces in even indubitable products of conception; and moreover that these products may resemble most closely in many particulars, some of the other substances which have been denominated moles, and which many authors assure us, may be formed in females who never have had any sexual intercourse.

A useful lesson for the exercise of caution in giving our professional opinion may likewise be drawn from the preceding history. Dr. Montgomery mentions a case in which a similar substance was expelled immediately after the discharge of a healthy ovum, containing a well-formed fœtus of four months.

"The substance had the external characters usually considered as those of a mole, and was of the form and size of a large orange. When opened, no trace of a fœtus could be discovered, but there was a small remnant of an umbilical cord, which was ragged at its unattached extremity: the fleshy envelope varied in thickness from an eighth to half an inch, the thickest part being that where the placenta was situated, the internal surface of which exhibited very remarkably the tubercular disease represented in Denman's ninth plate." 22.

On the whole, from an attentive examination of the sentiments of the most eminent obstetrical writers, we are disposed to agree with the conclusion to which our author has arrived; viz. that all moles which exhibit traces of the component structures of the ovum, such as are detailed in the description which we have extracted from Voigtel, are the results of impregnation, and are never discovered in the virgin womb. While however we make this admission, our earnest advice is, to exercise the greatest circumspection, to enquire diligently into all the accompanying circumstances of the case in question, and to avoid any rash and unpremeditated decision.

The subject is not yet "hors de combat." A similar remark is applicable to another uterine formation, that of hydatids; Denman, Gardien, and Sir C. Clarke admitting their accidental and independent development; while Baudelocque, Voigtel, and the French writers of the present day, regard them as invariably the products of conception.

### ON THE CORPORA LUTEA.

If we examine the ovaries of a woman, within a few days after impregnation, we shall find that one of these organs exhibits traces of the recent escape of the germ; it is larger and more vascular than the other, and is also fuller and softer to the touch; but this increase of size is not uniform over the whole surface; one point projects more than the rest of the gland, and if this part be carefully observed, a small slit or torn orifice may be seen there. Sir E. Home describes it in a woman who died, eight days it is supposed, after impregnation, as follows:—

"The right ovarium had a small torn orifice upon the most prominent part of its external surface. We slit it open in a longitudinal direction, in a line close to the edge of this orifice; the orifice was found to lead to a cavity filled with coagulated blood, and surrounded by a yellowish organized substance." 32.

This projecting part of the ovarium always indicates the spot whence the vivified ovum has escaped; and if the examination is made soon after that event, there is seldom any difficulty of recognizing it; the appearance however become less and less distinct, according to the length of the interval which has elapsed since impregnation, and finally they cease altogether, with the exception of the cicatrix of the wound, which continues longer than the rest.

We can trace the series of changes more easily and satisfactorily in some of the lower animals; in the cow and sheep for example, the swollen part of the ovary projects we are told by Dr. M. as a parasitic tumor hanging from it; and in the common sow "the ovaries after conception appear literally like branches of round berries, from the great prominence of the numerous corpora lutea." The next step in the investigation, is to ascertain the internal structure and appearance of the part; and as it is of great importance that strictly accurate notions should be had on this subject, we cannot do better than extract the following description, which is given in Dr. Montgomery's Memoir, of a true corpus luteum.

"In *form* and *size* it is almost always an oval, with its longer axis varying from four to five eights of an inch, and the shorter from three to four eighths; its thickness is generally less than its breadth.

*Its texture* is obviously and strikingly glandular, resembling a section of the human kidney; or, as some one has said, it is like a miniature of the particular sections of the brain called by anatomists *centrum ovale*. William Hunter describes it as "tender and friable, like glandular flesh."

*It is very vascular*, small vessels being very frequently visible without any preparation; but if fine-coloured injections have been previously thrown into one of the branches of the spermatic arteries going to the ovary, the vessels of the corpus luteum will be filled with the colouring matter, and are to be seen very distinctly running from its circumference towards its centre.

*Its colour* is, as its name implies, a dull yellow, very similar to that of the buffy coat of the blood; exhibiting generally, when recently exposed, a slightly reddish tinge, '*ex flavo rubens.*' Haller." 32.

We have seen that the cavity of the corpus luteum was found by Sir E. Home filled with coagulated blood, in a woman, who died eight days after conception; this blood becomes gradually absorbed; the little cavity becomes lined and surrounded with a tough white membrane; its dimensions are contracted, so that in three, or four months, it is often not larger than a grain of wheat, and subsequently it is entirely obliterated; and in its place there remains only an inner or central white radiated cicatrix; this cicatrix forms an essential character, we are told by the author, distinguishing the mark of the corpus luteum from that of any other formation, which may be confounded with it: it is not however permanent.

"The exact period of its total disappearance we are unable to state; but we have found it distinctly visible so late as at the end of five months after delivery at the full time, but not beyond this period; and the corpus luteum of a preceding conception is never to be found along with that of a more recent, when gestation has arrived at its full term; but in cases of miscarriage repeated at short intervals, it may." 32.

The following abstract of three dissections, will illustrate the appearances of the corpora lutea, in their different stages. *Obs.* 1. A woman died of inflammation of the womb, a few days after delivery; the white central cicatrix was very distinct; and externally the ovary exhibited the superficial cicatrix, and the swelling, or projection of the part. *Obs.* 2. In a woman who died in five weeks after delivery at the full time, the corpus luteum was found to be diminished to one half of its original dimensions; its texture had become firmer and more consolidated, and the yellow colour was indistinct in numerous points, so that it was much paler throughout, than at an earlier period; the radiated central cicatrix was quite distinct: the external surface of the ovary was fuller and more prominent over this part, and the cicatrix of the superficial fissure was well marked. Although this woman had borne six children, there was only one cicatrix observable on each ovary.

*Obs.* 3. In a woman who died twelve weeks after delivery, the external swelling on the ovary was greatly diminished, but it was still sufficiently obvious to indicate the exact situation of the corpus luteum; the superficial cicatrix was well seen: the corpus luteum itself had lost much of its colour; and what remained, became, on immersion into spirits, of a light grey shade; the texture of its substance was more condensed, and resembled that of a cut apple; its dimensions, especially in breadth, were reduced to about one third, or rather less; but the central radiated cicatrix was still distinctly observable.

In a young woman who died five months after the delivery of her first child, the ovary retained very little of its increased size or altered form; the prominence was hardly to be recognized; but the external cicatrix was perfectly obvious. When opened the corpus luteum exhibited its peculiar colour, only in one very small spot, rather larger than a mustard seed, within which was observed the central radiated cicatrix; the yellow colour completely disappeared when the ovary was immersed in proof spirit, which does

not happen with a corpus luteum examined during gestation, or about the period of delivery.

It is quite an erroneous supposition that corpora lutea are permanent during life, and that we can predict from the appearance of the ovaries, the number of children which the woman has borne. Dr. M. has never been able to detect their existence when more than five or six months from the time of delivery have elapsed. Even the external cicatrix becomes gradually less distinct, and may be at length quite effaced, so that the ovaries of women who have borne many children, may present only one or two scars, and perhaps none at all, if the interval since the last gestation has been long.

It is to be remembered, that if the ovaria become diseased, and especially if they have ever been the seat of suppuration, scars very like to those left by the escape of ova, may be formed, and thus give rise to very serious mistakes. The conclusion which Dr. M. draws from his repeated observations and dissections of a great number of women, and a much larger number of brute animals, is that he "has never in any one instance seen the corpus luteum, having the characters as above described belonging to it, except in females who had previously been impregnated, and who had conceived; and that such a corpus luteum was never found in a virgin animal." And again he says, "we believe no one ever found a fœtus in utero without a corpus luteum in the ovary; and that the truth of Haller's corollary 'nullus unquam conceptus est absque corpore luteo,' remains undisputed." Such also were the sentiments of De Graaf, of Dr. Haighton, and of Mr. Cruickshank. Occasionally indeed a corpus luteum has been discovered without a fœtus, or the number of the corpora may exceed the number of the fœtuses which are developed at the time. The great master of physiology has noticed this seeming incongruity, in his Elementa—"si unquam absque fœtu, corpus luteum in ovario repertum est, quod est rarissimum, credibile est eum fœtum abortu perditum, aut alio modo destructum disparuisse." Having thus ably explained the characters of the genuine corpora lutea, our author proceeds to examine the opinions of those physiologists who have maintained, that they may be formed in the ovaries of virgin females, and in no part of his memoir has he been more felicitous and conclusive, than in his refutation of those doctrines. He most satisfactorily shews that authors have upon this, as too often upon other subjects, which can only be determined by minute and repeated personal observations, idly followed each other's assertions, and have rarely hazarded their opinions upon their own authority. The testimony of the distinguished Blumenbach has been frequently referred to on this subject, and yet it is very remarkable, that in no one part of his dissertation does even he "speak as from personal observation or examination of the subject by himself, but confines himself to physiological reasonings grounded on the facts observed by others,* from the consideration of which he declares his *belief*† in one place, and his *suspicion*‡ in another, that the fact may be so, but he nowhere asserts that he saw an instance of it; and he adds that all the cases his reading furnished him with, happened

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* "'Corpora lutea in innuptis observarunt *auctores*.' Op. cit. p. 113."
† "'Et ita corpora lutea in virgineo corpore oriri *confido*.'"
‡ "'Non absimilem originem *suspicor*.' Op. cit. p. 113."

in Italian girls, whose climate he appears to suspect might have something to do with the matter."

Meckel, too, who has been adduced in confirmation of the same views, nowhere distinctly asserts that a true corpus luteum is ever seen in the virgin ovary; his words are—

"The influence of the male semen is the ordinary and regular cause of this change, which, however, *it appears*, may be effected under the influence of other stimuli, *perhaps* by the imagination or unnatural enjoyments."

And again—

"In truth, many of these rare cases, in which corpora lutea have been found in unmarried women, and in girls having the physical marks of virginity, allow the belief that the formation of these bodies *had been preceded by sexual intercourse and fecundation.*" 35.

Now surely these hesitating, and at best only conjectural opinions, are far outweighed by the decisive evidence, drawn from a multitude of experiments performed on purpose, by the authors to whom we formerly alluded. No words can be stronger than those employed by Dr. Haighton in a paper read before the Royal Society of London.

"I decline trespassing on your patience, and therefore lay before you only the conclusion; which is, that in the great variety of experiments on brute animals which my physiological inquiries have led me to conduct, as well as in the extensive opportunities I have had of observing the ovaries in the human subject, I have never seen a recently formed corpus luteum unattended with some circumstance or other connecting it very evidently with impregnation." 36.

With the truth of these remarks, the most eminent anatomists of the present day coincided upon the trial at Liverpool, in 1808, of Mr. Angus, for the supposed murder of Miss. Burris.

"It was not until after the trial that the ovaria were examined. They were then divided in the presence of a number of physicians, and a corpus luteum distinctly perceived in one of them. Mr. Hay took the uterus and its appendages to London, and shewed it to the most eminent practitioners there. He received certificates from Drs. Denman and Haighton, Messrs. Henry Cline, Charles M. Clarke, Astley Cooper, and Abernethy, all stating that it exhibited appearances that could alone be explained on the idea of an advanced state of pregnancy. *And it appears to have been universally allowed, that the discovery of the corpus luteum proved the fact beyond a doubt.*" 37.

Respectable writers have frequently described appearances in virgin ovaries, which most inaccurately have been mistaken for true corpora lutea; and, indeed, every one who is in the habit of examining dead bodies must have upon many occasions found yellow spots in these organs, quite unconnected with any previous impregnation; but these different appearances may be distinguished by the accurate observer.

"We think that those who have supposed or asserted that they may exist without impregnation, and of course be found in the virgin ovary, have been led into the error by confounding appearances and structures essentially different, and in fact having only one character in common, which is their colour, altogether forgetting that 'every yellow substance in the ovary is not a corpus luteum.'* It is allowed by those writers that 'the corpora lutea of virgins may in general be distinguished by their smaller size, and by the less extensive

* "*Meckel*, supra citat."

vascularity of the contiguous parts of the ovarium.'* Now we have seen several of these virgin corpora lutea, as they are unhappily called, and have preserved several specimens of them, and according to our experience they differ from those of impregnation in all the following particulars:—1. there is no prominence or enlargement of the ovary over them; 2. the external cicatrix is wanting; 3. there are often several of them in both ovaries, especially in patients who have died of tubercular diseases; 4. they are not vascular, and cannot be injected; 5. their texture is sometimes so infirm, that they seem to consist merely of the remains of a coagulum, and at others appear fibro-cellular and resembling that of the internal structure of the ovary, but in no instance did we ever see them presenting the soft, rich, and regularly glandular appearance which Hunter meant to express when he described them as 'tender and friable like glandular flesh;'† 6. they have neither the central cavity, nor the radiated cicatrix which results from its closure." 37.

Our reasons for having selected the subject of the corpora lutea for illustration, in preference to the other post-mortem signs of impregnation, must be now abundantly evident. Hitherto there has been nothing like certainty, and no congruity of sentiments, upon the true nature and the true origin of these formations. Upon a trial which took place some years ago in Edinburgh, the most opposite and inconsistent evidence was given by the medical men who were examined as witnesses. Four students had exhumed the body of an elderly female, who was unmarried and a virgin; and when they were apprehended, the corpse was found to be so disfigured, that no accurate identification could be made. It was alleged in the defence of the prisoners, who denied the charge, that a genuine corpus luteum had been found in one of the ovaries; and a number of surgeons were summoned to pronounce upon this appearance, and, at the same time, to determine whether it should be admitted as a proof of the person having been ever impregnated. One half of them maintained the affirmative of both these questions, and the other half were of the opposite opinion, so that no safe deductions could possibly be drawn from the medical evidence. The body was afterwards identified, by a denist producing a cast which he had taken of the gums.

Several of the other topics treated of in this Essay are equally interesting and instructive, especially those which relate to the occasional occurrence not only of conception but even of delivery, without the consciousness of the female, while asleep, or during the stupor of an hysterial paroxysm. some may, perhaps, be inclined to smile with incredulity at the bare mention of such possibilities; let them smile on, if it please them, but let them cease their incredulity—or rather, we should term it, their ignorant presumption. Capuron, Fodéré, Marc, Dr. Gooch, Mr. Cussack, and many others, have met with cases which fully prove the first of these positions. The language of the first of these authors is very explicit.

"'It is a fact (says Capuron) which experience has more than once confirmed, that a woman may become with child while in a state of hysteria, under the influence of narcotics, during asphyxia, drunkenness, or *deep sleep*, and consequently without being conscious of it, or sharing the enjoyment of the man who dishonours her;' and in proof he mentions having attended a young woman who was got with child while totally unconscious,

* Mr. Stanley and Dr. Blundell.
† Description of Gravid Uterus, p. 14.

being buried in a deep sleep produced by punch given her by her paramour.* She became aware of her condition for the first time when she felt the sensation of motion in the fourth month." 28.

Equally unimpeachable are the authorities which may be adduced, to prove that delivery has actually taken place, without any consciousness of the fact.

"In the London Practice of Midwifery,† a work generally ascribed to a late very distinguished practitioner, we find the following account. 'A lady of great respectability, the wife of a peer of the realm, was actually delivered once in her sleep: she immediately awaked her husband, being a little alarmed at finding one more in bed than was before.'" 44.

The possibility of these occurrences ought ever to be kept in mind by the medical jurist and the friend of humanity; for we have seen that a female may not only incur all the moral turpitude of dissoluteness, but even be exposed to the aggravated charge of infanticide; and yet be unconscious of the act of infamy on the one hand, and of her delivery and of the death of the child, on the other.

Those who are anxious for particulars should consult the original essay; they will be amply rewarded by a diligent perusal of it. It contains a vast quantity of highly useful professional information, and, on the whole, is one of the most able contributions to the excellent Cyclopædia of Practical Medicine.

## XI.

A RATIONAL EXPOSITION OF THE PHYSICAL SIGNS OF THE DISEASES OF THE LUNGS AND PLEURA; ILLUSTRATING THEIR PATHOLOGY AND FACILITATING THEIR DIAGNOSIS. By *Charles J. B. Williams*, M.D. Second Edition, 1833.

THE second edition of Dr. Williams' valuable work on Auscultation having appeared, we deem it an advantage to our readers generally, and to those who hold the first edition particularly, to lay before them the substance of the new matter introduced into this edition. These additions are chiefly in the Sections on Percussion, and on the Auscultation of the Heart, which have been re-written. Dr. W. has also added an Appendix, in which are described various unsettled points connected with the latter subject.

The percussor or pleximeter which Dr. W. now uses, is a thin disk of ivory, about an inch in diameter, covered, on one side, with leather, and having, on the same side, two little projections, by which the fingers may press it firmly on the point of examination. We have lately used a flat piece of India-rubber, with all the advantage of the ivory—but we prefer the fingers.

"There is, however, a kind of mediate percussion requiring the aid of no instrument yet so easy in its application, and accurate in its results, that it has generally superseded pleximeters on all common occasions. I allude to the use of the fingers of the left hand as a pleximeter. If one or more of these with the back outwards, be applied to any part

* See Méd. Lég. relat. aux Accouchemens, pp. 57, 84.
† Fifth edition, p. 87. See also Barlow's Essays on Surgery and Midwifery, p. 182.

of the chest, percussion may be practised on them, without annoyance to the patient, and with the effect of eliciting a much louder sound than can be obtained by direct percussion. The pliancy and capability of the fingers, by which they can singly or collectively be made to fit any inequality in the surface of the chest, single fingers being used where delicacy is required, and all four where only a general survey of the chest is wanted, render this method so much more prompt and *handy*, that I have no doubt of its adoption, to the exclusion of other modes." 22.

Dr. W. justly remarks, that a person commencing the practice of percussion, will be guided more safely by the *comparative* than by the *absolute* sounds of different parts of the chest; and although he should lose no opportunity of acquainting himself with the sounds both of percussion and auscultation in healthy subjects, he should, in case of disease, direct his attention to irregularities or want of correspondence of sound in the two sides of the chest. The difference of sound in two corresponding parts of the same chest is often so striking, that the patient instantly remarks it, and is surprized at it.

In respect to auscultation of the heart, our author, in the first edition, expressed a distrust as to our knowledge of the signs produced by the motions of the heart—and later researches, he thinks, have proved the views of Laennec to be, in some respects, erroneous. He thinks the observations and opinions of Dr. Hope are better established than any others, and he therefore modifies the descriptions of Laennec by the practical conclusions of the author above-mentioned. But without repeating descriptions which have already been made, we shall give place to the Appendix itself, as containing many matters for the serious consideration of all auscultators. The extract is long; but is very important, and insusceptible of analysis.

Appendix.—*On the Motions and Sounds of the Heart.*

"In the section on the Auscultation of the Heart, it was stated that the subject had given rise to many conflicting opinions; and as it was judged inexpedient to confuse the mind of the student in auscultation by a multiplicity of views, the best established and most important points were alone exposed, and all doubtful explanations and applications were avoided. It is of considerable utility in the examination of a controverted point, to review fairly the various opinions respecting it, and by collating them with available facts, to determine the comparative probability of these views: if this had been done with regard to the present subject, much useless speculation might have been saved, and some animal life spared; for any attentive reader of the periodic medical literature, must have perceived that the same opinions have been broached, refuted, and revived by successive writers, and the same experiments performed and reiterated in apparent ignorance of preceding inquiries.

On this account, and to justify what has been set forth in the text, I am induced to give a summary sketch of the leading features in the views which have been advanced respecting the motions and sounds of the heart, and bring them successively to the test of some well-established pathological or physiological facts. Others, besides the names quoted may have supported the views in question, but it is only the views which I wish to deal with, and I cite the writers with a wish to show that the arguments which each has advanced have been carefully studied.

1. M. Laennec. *a.* 1st sound, impulse, and pulse, caused by the ventricular systole. *b.* 2nd sound by the systole of the auricles.—*Remarks.* *a.* Generally admitted, and proved by various facts and experiments. *b.* Disproved by the fact noticed by Harvey and Haller, and confirmed by modern experiments, that the auricular contraction immediately precedes that of the ventricles; also by this fact, that both sounds sometimes continue after the auricles have ceased to contract.*

2. Mr. Turner.† 2nd sound produced by the falling back of the heart on the pericardium

* Dr. Hope's Experiments on Asses. See his Work, p. 36.
† Med. Chir. Trans. Edin. Vol. III.

after the cystole of the ventricles.—*Remark.* Disproved by the fact that the sound continues when the heart pulsates out of the pericardium.

3. Dr. Corrigan.* *a.* Impulse and 1st sound caused by the rush of blood into the ventricles during the auricular systole. *b.* 2nd sound by the ventricular systole, which he considers to be instantaneous.—*Remarks.* *a.* Disproved by the clearly ascertained facts that the 1st sound and impulse accompany the systole of the ventricles when the auricles have ceased to contract. *b.* Disproved clearly in large animals by the ventricular systole, (which is not instantaneous) and the pulse of arteries near the heart, evidently preceding the 2nd sound;† and further disproved by several pathological phenomena.

4. Dr. David Williams.‡ 2nd sound caused by the flapping open of the auriculo-ventricular valves against the sides of the ventricles; these valves he supposes to be opened by the musculi papillares.—*Remark.* This is contrary to the received opinion of anatomists with respect to the functions of the auricular valves and musculi papillares, and there is no collateral argument to maintain so gratuitous an assumption.

5. M. Pigeaux.§ *a.* 1st sound produced by the blood rushing into the ventricles at the moment of their diastole. *b.* 2nd sound by the collision of the blood against the walls of the aorta and pulmonary artery. *c.* The ventrioles contract in a moment of silence before the second sound. *d.* The intensity of the sounds proportioned to the force by which the blood is impelled.—*Remarks.* *a.* Opposed by the facts stated against 3 *a*; opposed also by many pathological facts, such as the occurrence of a murmur with the 1st sound in case of diseased semi-lunar valves. *b.* Disproved by the fact that the 2d sound occurs distinctly *after* the pulse in the carotids, and therefore after that in the larger arteries. *c.* Opposed by the observation that the 1st sound and ventricular systole occur together and correspond in duration. *d.* This is opposed by the morbid phenomena of dilatation of the ventricles, which always increases the first sound, and of hypertrophy, which diminishes both sounds.

6. M. Majendie.‖ 1st sound and impulse produced by the ventricular diastole impelling the apex, the 2nd sound by the systole impelling the base of the heart against the walls of the chest.—*Remark.* Disproved by the facts opposed to 2, and 5, *b*.

The following opinions require a fuller discussion.

7. M. Rouanet.¶ *a* 1st sound caused by the closing of the mitral and tricuspid valves against the auriculo-ventricular orifices during the ventricular systole. *b.* 2nd sound by the reaction of the blood in the arteries on the semilunar valves at the moment of the ventricular diastole.

8. Mr. H. Carlile.** *a.* 1st sound produced by the rush of blood into the arteries during the ventricular systole. *b.* 2nd sound by the reaction on the semilunar valves as stated in *b* 7.

9. Dr. Hope. *a.* 1st sound and impulse, caused by the ventricular systole. *b.* 2nd sound and *back stroke*, or 2nd impulse, by the ventricular diastole. The natural as well as morbid sounds produced by the motions of the contained fluid.

Before we sift the questionable points in these three last views, it will be proper to review the principal grounds on which we adopt their description of the sounds and motions, in defiance of many preceding authorities. Having been present at some of Doctor Hope's experiments on the ass, I had ample opportunity of convincing myself that the sounds were connected with the motions of the ventricles only. When the pericardium was laid open, and the large heart exposed, vigorously pulsating; the eye watching it, the hand grasping it, and the stethoscope applied to it, gave perfectly corresponding impressions, insomuch, that on substituting touch for hearing, it was difficult to banish the impression that one still *heard* the double sound which was so exactly represented in quality and duration by the motions of the ventricles, as felt and seen; and on combining touch and hearing, by applying the hand and the stethoscope at the same time, these

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* Trans. of King's and Queen's Coll. of Phys. Ireland.

† Dr. Hope's Experiments, p. 31 of his work; and those of Mr. Carlile, Dublin Journal of Medic. Sci. Vol. IV.

‡ Edin. Med. and Surg. Journ. Oct. 1829.

§ Arch. Générales de Médecine, Juillet et Novembre, 1832.

‖ In a Lecture read at the College of France, quoted by M. Pigeaux.

¶ Journ. Hebdom. No. 97; also Mr. Bryan, Lancet, Sept. 1833.

** Dublin Journal of Medical Science, Vol. IV. The essay was likewise read at Cambridge Meeting of the British Association.

impressions, which corresponded in nature and duration, were found also to be perfectly simultaneous. The apex of the heart was observed and felt to strike against the ribs at each systole, and thus was explained the impulse. The motions of the auricles, when regular, preceded the ventricular motions and sounds; they were slight and undulatory, increasing from the sinus to the appendix, where they terminated suddenly, and were immediately followed by the ventricular systole. They afterwards became irregular, sometimes failing and sometimes occurring twice slightly during the period of ventricular repose, and in one experiment, entirely ceased some minutes before the movements and sounds of the ventricles. In no instance were they attended with any perceptible sound. This account is confirmed by the experiments of Mr. Carlile, which satisfactorily explain the succession of the motions of the auricles and ventricles; but they were performed on animals too small to illustrate the sounds. He very justly shews that the pulse cannot be simultaneous in all the arteries at once, but must be successive, transmitted in a wave from the heart to the end of these elastic tubes.

Although it seems fairly established that the first, or dull sound, is produced by the systole of the ventricles; and the second, or quick one, by their diastole, it is by no means clearly explained in what way these actions generate these sounds. The following causes have been severally assigned as physically capable of generating the first sounds during the systole of the ventricles. 1. The collision of the particles of fluid in the ventricles. (Dr. Hope.)—2. The rush of blood into the great arteries. (Mr. Carlile.)—3. The closing of the mitral and tricuspid valves. (M. Rouanet, Mr. Bryan.)—4. The muscular contraction itself.

The first of these explanations is ingeniously proposed by Dr. Hope, but he advances no facts in direct proof of the hypothesis. In a number of experiments which I have made on the generation of sound, I have found liquids of all bodies, the most difficult to excite to sonorous vibration; and although they readily transmit vibrations already produced in solids, it requires a combination of circumstances to make them originate sound. This is consistent with the explanation which I have given of the production of sound, (p. 6, *et seq.*) for impulses which throw solids into sonorous vibrations, are expended in liquids in causing a displacement of their particles. On making an experiment with a gum-elastic bottle, by filling it with water, and then forcibly compressing it under water by the end of the stethoscope, (avoiding the use of the hand, for that produces its own muscular sound) I have failed in procuring any sound at all approaching to that of the heart's contraction. The blood yields readily to the contracting ventricle, and there being no obstacle to the escape of blood from it, further than the weight of the arterial column, which the normal action of the heart can quietly and steadily overcome, it passes into the arteries without vibration. But if there be an obstacle to the current of the blood from the ventricle, whether that obstacle be a narrowing or a projection in the orifice, the current will act on it just as the bow does on the string of a violin; a sound will be excited, and thus are produced valvular murmurs. Again, if instead of the orifices being narrowed, the heart contracts with unnatural briskness, expelling its contents with convulsive energy, the natural outlets then become relatively narrow, and are thrown into vibrations; this is the *rationale* of the bellows murmur which accompanies the jerking pulse of pericarditis and the irritation of inanition. But the difference of these sounds, and of the circumstances that excite them, from those of the normal action of the heart, makes me hesitate to refer the latter to the same principle; and the fact that the morbid are often superadded to the natural sounds, also inclines me to think that they have a distinct cause.

2. The second explanation of the first sound, the rush of blood into the larger arteries, is perhaps less liable to the acoustic objection before urged, than the preceding opinion, for the blood has acquired an impulse when it enters the arteries, and if its course there is not free, it might readily produce a sound. But in their natural state, the arteries give passage to the blood as smoothly as the heart parts with it, and it would prove an imperfection in nature were it otherwise. Moreover, if this explanation were true, the large arteries rather than the heart would be the principal seat of the sound; and the sound should be increased by an hypertrophied heart, with a strong pulse, and diminished by a dilated heart and a weak pulse; yet the reverse of these is presented in nature.

3. The closing of the auricular valves. The principal objection to this as the only cause of the first sound, is, that it must be instantaneous, and confined to the first part of the ventricular systole, whereas we know that the first sound is prolonged during the whole period of this action.

4. Although Laennec referred the first sound to the systole of the ventricles, he did

not attempt to define the physical cause of its production. In the former edition of this work, I ventured to class it among the muscular sounds which Dr. Wollaston* first noticed to occur in all cases of rapid muscular contraction. This sound may be exemplified by applying the fleshy part of the thumb to the stethoscope or naked ear, and bending and straightening the thumb. It is louder in muscles that are thin, and in a state of considerable tension; and it is remarkable that it does not cease with the apparent movement, but continues as long as the muscle remains contracted and tense: it then takes on an intermitting character like the noise of the rolling of a carriage over rough pavement, whence Dr. Wollaston was led to infer that muscular action is not perfectly continued, but consists of a series of minute contractions and relaxations. A good example of it may be obtained on applying the stethoscope to the neck of a person who holds his head back towards the opposite side, and then throws the platysma myoides into contraction. It still appears to me, that the most simple and satisfactory way of accounting for the first or systolic sound of th heart, is to refer it to this class of sounds. Their physical production seems to depend on the tension into which the fibres of muscles are thrown when they contract; and the self-acting power of these fibres constitutes them the motors as well as the subjects of sonorous vibrations. Here we have to remark the extreme facility with which the motions of solids produce sounds, compared with those of fluids; for it is almost impossible to touch, stretch, bend or compress solids, without throwing them into sonorous vibrations. The varieties observed in the contraction of the heart seem to me to be perfectly explicable on this principle. The sound begins the moment the fibres arrive at a state of tension; it continues until the contraction is completed and the blood expelled from the ventricle, and ceases the instant of the diastole. To perceive more readily the effect of hypertrophy, and of dilatation, let us attend to the sounds produced by the tension of linen or canvass, (for muscle is, mechanically speaking, equally a web of fibres,) and we shall find that in proportion as we thicken the substance, we obscure the sound which is produced on briskly stretching it; but when we use thin and simple webs, the sound becomes proportionally loud and clear. I shall not pursue the illustration of this explanation further, for I introduce it here only interrogatively, as deserving a place among other views, on the claims of which, future observation and experiment must decide. I must only remark, that M. Pigeaux is in error when he maintains that muscular sounds cannot be produced under water: I find them more distinct and free from adventitious sounds of the surface, and I have been able to imitate the sounds of the heart very exactly by muscular movements of the hand under water. I will conclude with the question, if the sounds of the heart are produced by another cause, what becomes of the muscular sound in this case of rapid muscular contraction?

We now come to the subject of the second sound, which, although certainly occurring at the moment of the diastole of the ventricles, has received several different explanations as to its physical cause. The only two which appear tenable in the present state of our knowledge are—1. The reaction of the arterial columns of blood against the semilunar valves. 2. The impulse of the blood from the auricles refilling the ventricle at its diastole.

1. The first of these bears a very inviting aspect, for the 2d sound is just of that abrupt flapping character that might be supposed to result from the action of a thin valve. But it may be objected to this view, that the arteries more than the heart, should be the seat of this sound. The tense column which throws these valves into play, should receive their shock more forcibly than the heart, which at that moment has become flaccid, and ill adapted to transmit sound or impulse (backstroke) through the whole of its substance. There are some cases of disease which seem also to militate against it. In a case described by Dr. Hope, the 2nd sound on the left side was quite distinct, yet the aortic valves were found in a state of complete rigidity. (Case 20). In another case, the 2nd sound was remarkably loud on the left side, with a weak pulse; yet, after death there was found disease of the mitral valve permitting free regurgitation, and contraction of the aorta: this combination of disease, must have diminished the action of the aortic valves. (Case 15). The action of these valves will be strong, in proportion as the arteries are well filled, and the pulse strong, and the 2nd sound should in this view be proportionally loud. On consulting the records of some cases of this description, I have not found this correspondence. Still I do not consider this view entirely disproved, and it should claim attention in future investigations.

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* Croonian Lecture, Phil. Trans. 1810.

2. This is Dr. Hope's explanation of the second sound: when the diastole takes place, the blood impelled by a number of concurrent circumstances, shoots with instantaneous velocity from the auricles into the ventricles; and the reaction of the ventricular walls on its particles, when their course is abruptly arrested by the completion of the diastole, is, he conceives, the cause of the loud, brief, and clear sound. The concurrent circumstances which impel the blood into the ventricles at the moment of their diastole, are the distention of the auricles in which the blood has been accumulating during the ventricular contraction; the weight of the ventricles collapsing on the auricles thus distended; the width of the auriculo-ventricular orifices; and lastly, the sucking power of the ventricle in its diastole. With respect to this last, Dr. Hope does not assume that the ventricles have an actively dilating power further than what proceeds from the physical elasticity of their parietes, but such a power has been ascribed to them by Bichat, Pechlin, Carson, and others, and even by Laennec; and although opposed to what we at present know of animal dynamics, it would be rash to absolutely deny the possibility of its existence. The injection of the coronary arteries, which occurs the instant the systolic action ceases, may somewhat contribute to the dilatation of the ventricles. Whatever be the cause, the diastole in large animals is sufficient to force open the hand of a person grasping the ventricles, and it is therefore not surprising that this should have been ascribed to an actively dilating power. It is in favour of Dr. Hope's explanation of the second sound, that it does not falsify Laennec's signs of disease of the auricular valves; and although for acoustic reasons before stated, I should be inclined to place the seat of the sound in the parietes of the ventricles, rendered momentarily tense by the sudden influx of blood, rather than in the motions of the fluid, I incline to this explanation of the cause of the second sound. It needs, however, as Dr. Copland observes, further confirmation: I would add, that the whole subject of the sounds of the heart requires further research; and I shall have accomplished a good object, if these remarks should induce Dr. Hope, who has already thrown so much light on it, to follow up the investigation, until he shall have cleared away the difficulties and doubts that at present beset it."

To those who have not the first edition of Dr. Williams' work, we strongly recommend the present one. To those who hold it, we have afforded an advantage of some consequence. The Appendix is deserving of the consideration of all our readers.

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## XII.

**Surgical Essays, the Result of Clinical Observations made at Guy's Hospital.** By *Bransby B. Cooper*, F. R. S. &c. Large 8vo. pp. 281. London, 1833.

The object of this publication is, to use the words of its zealous author, to give to the world a collection of cases occurring in hospital practice, systematically arranged, with the views that immediately influenced the method of treatment. Mr. Cooper compares a report thus conducted to a series of clinical lectures, or rather to the preparations in a well-arranged museum. He remarks, and remarks truly, that the benefits conferred by the establishment of hospitals are double—one, ostensible and great, to the afflicted poor—the other, less ostensible to laymen, but almost equally important, to the youth of the profession.

We hail the appearance of a work professing principles like these with a feeling of great satisfaction. It is but the beginning of the end, a prelude to other things. We have urged on hospital surgeons and physicians, the duty and the necessity of making the facts which they observe subservient to public professional utility. Till this work came, our call was answered only from the provinces, and the lethargy of aristocratical reserve was not

interrupted in the Capital. But the signs of the times make an earlier impression on some men than on others, and the striking manifestations of public feeling that have recently been witnessed, must induce those who rank as the foremost in the profession to bestir themselves, and answer its just expectations.

Hospital appointments must soon be considered as real trusts, not only to the governors and patients of the institutions, but also to science and the medical public. They must not be longer looked on as preservers, where a favoured race may be fattened and fed with little exertion or merit of their own. Our professional youth have a right to ask for cheaper opportunities of acquiring knowledge—the members of our colleges should be free of the practice of every hospital—and the medical officers should deem themselves bound to communicate clinical reports, in the fullest and most eligible manner. We have little doubt that few years will elapse, before the impatient spirit of the day will demand and obtain such concessions as these.

We have spoken so often and so long on the subject of clinical reports, that further observations would be merely repetition. We know not if our efforts to encourage the surgeons and physicians of hospitals to collect and to diffuse them, have been productive of desirable consequences. But our voice has been earnest, if it has not been efficient, and vanity might tempt us to express the suspicion, that the zealous have been stimulated and encouraged by our praise—the indolent shamed by the severity of our censure.

To ensure a reasonable quantum of success, an undertaking commenced with ardour must be carried into execution with discretion. It is not enough that the spirit be willing—the flesh also must be strong. When we urge the publication of clinical reports, we are far from wishing to entrap the reporters into a ruinous or needless expense. It is flattering to our pride to convey our actions or opinions to the world, in the manner most adapted to our consciousness of merit. But the world is more niggard of its praise than of its censure—of its practical and real support than of its praise. We are tempted to indulge in this strain of remark, from observing, with more of misgiving than of surprise, that the gentlemen who have lately published clinical reports, have embodied them in regular—indeed in voluminous works. We think that, if pecuniary expense is an object, the plan is attended with serious objections. The quantity of volumes that issue from the press preclude the extensive purchase of many, and those which are devoted to the mere collection of insulated, or comparatively insulated, facts, are beyond the desire and the reach of buyers. Even should the authors be so disinterested, and we do not say that they are not, as to disregard their personal loss, and merge their purses and their minds in a keen aspiration for general advantage, we would hint that books which are little bought are very frequently little read. The diffusion of their views and of their names is necessary, we imagine, to their extensive reputation, and thus we may perceive, that the mingled operation of poverty and bad taste on the part of the reader, wounds the writer in two very sensible places—his pocket and his fame. If the pointed, and perhaps unpleasant, questions were put to Dr. Macfarlane, Mr. Fleming, or Mr. Fletcher—"Have your clinical reports paid the cost of their paper?" we fear that their reply would be, "No, they have not." And yet these reports are possessed of great value to all who rightly appreciate facts, and are actuated by the spirit of inductive philosophy.

Although it is easy to point out the error which persons of ability and

excellent intentions have committed, it is not easy to detect the remedy. It may be said that the periodical journals present an obvious and appropriate medium for the publication of clinical facts. But the only journals which possess a circulation are those of a quarterly and weekly form. However extended may be the circulation of the latter, their rapid succession and numerous phases contribute greatly to distract attention, and to give an ephemeral character to their contents. Their bulk is also ill adapted to the insertion of lengthened papers. There are equal objections to the selection of journals of a quarterly description, but the fear of appearing censorious or invidious prevents particular allusion to their nature.

Perhaps a volume, resembling the Transactions of the Medico-Chirurgical Society, would form the best vehicle of clinical reports. The expense might be defrayed in one or two manners—the Colleges of Surgeons and Physicians, reformed and adapted to the wants of the profession, or their single successor, if a single successor should appear, might superintend the publication of the work, and devote the collegiate funds to its expenses. Or the hospital surgeons and physicians themselves, comprising those of the provinces and capital, might constitute an association for this express purpose. By this step they would show the spirit which would animate them, acquire a title to the grateful consideration of their brethren, and remove a portion of that odium, probably unmerited, which industrious efforts on the part of their opponents have successfully excited against them.

We commenced with a promise that we would not digress, but we fear that the promise has been broken. Insensibly led away by our zeal for the promotion of useful professional knowledge, we have ventured to offer exhortation and advice, where our business was strictly review and analysis.

The work before us consists of what may be considered as five separate and distinct essays. The first is devoted to the Physiology of the Growth and Reparation of Bone—the second to Fractures in general—the third to Diseases of Joints—the fourth to Dislocations—and the fifth to Wounds and Injuries of the Abdomen. We select the latter for our present notice, and our choice is determined by its brevity rather than its worth. It would not be possible, were it even advantageous, to offer an analytical account of a clinical report of nearly three hundred pages. But the nature of the work admits of its dismemberment, and the fragments can be offered at convenient opportunities in convenient places. We shall give a short account of the Essays on Wounds of the Abdomen here, and the most important of the various facts profusely scattered through the pages of the volume, will be found at various times in our clinical department.

Wounds of the abdomen are considered by Mr. Cooper, as they have been considered by others, under different heads. The first comprise simple contusion of the abdominal parietes—the second, wounds of the parietes—the third, wounds of the parietes, with protrusion of the viscera—the fourth, wounds of the parietes and viscera—the fifth, laceration of the viscera, without solution of continuity of the parietes.

Of mere contusion of the abdominal parietes little need be said. When the patient is admitted in the state of collapse, there are few, and perhaps there may be no indications of injury of the viscera, or parts within. But Mr. Cooper justly remarks that, if there be lesion, the subsequent re-action tends to display it. The object of the surgeon is to prevent inflammation, by the use of appropriate and prompt depletion so soon as re-action begins.

We need not advert to the treatment recommended by our author for wounds of the parietes, without protrusion of the contents of the abdomen. They are those which are commonly adopted. If there is reason to suspect that the intestine has been injured, purgative medicines should be carefully avoided, at least in the first instance. Our author adverts to the treatment of intestine, when protruded through a wound. His considerations have been so much anticipated by most of the writers upon hernia, that we need not detail them here.

The following case displays the supervention of peritonitis on protrusion of intestine, although the protruded portion itself was not, in any especial degree the seat of inflammation.

*Case.* A man, while stealing lead from a brewery, was precipitated from its top. He was taken to Guy's Hospital. One thigh was broken, the left shoulder dislocated, and an old scrotal hernia was torn open, a considerable quantity of intestine having protruded, and remained exposed for nearly an hour. The intestine was immediately returned into the cavity of the abdomen, and the edges of the wound brought together by the uninterrupted suture; the fractured thigh was placed in splints, and the dislocated shoulder reduced, which was accomplished with much more than usual facility, in consequence of the state of collapse of the patient from his abdominal injury. His pulse being feeble, the surface of his body cold, and his respiration difficult, julep. ammon. was administered, and bottles of hot water applied to his feet, for the purpose of producing re-action, which was no sooner effected than pain in the abdomen came on, for which leeches were applied, and calomel with opium given, for the purpose of allaying his pain; all the symptoms, however, rapidly increased in urgency, and in fifteen hours after his admission he died.

Examination of the body disclosed severe peritoneal inflammation. The protruded intestine had not been ruptured, nor could it be distinguished from the remainder of the gut, excepting by its thickening, probably the result of its frequent descent into the hernial sac. The diaphragm was ruptured, and a considerable portion of the stomach had passed into the chest, a circumstance of which the symptoms had occasioned no suspicion during life.

"Several cases are on record of viscera having protruded through incised wounds of the abdomen, in which they have been returned into their natural cavity, and without any alarming symptom supervening, where a strict antiphlogistic discipline had been employed for the purpose of preventing inflammation. I have heard my colleague, Mr. Morgan relate a case, in which a boy at Tottenham received a wound in the abdomen, through which a large quantity of intestine protruded; he placed the viscera in his pinbefore, and walked a considerable distance to a surgeon who freed the bowels from a quantity of dust which adhered to them, returned them into the cavity of the abdomen, and sewed up the wound by the uninterrupted suture; by this judicious treatment the patient was restored to health." 264.

Mr. Cooper alludes to the practice of Mr. Key in cases of strangulated hernia, a practice of which full notice has been taken in the present number of this journal. He appears to be an advocate of the opinions of that gentleman.

In considering that class of injuries of the abdomen, in which the viscera are not only protruded but injured, Mr. Cooper inquires what method of treatment it is wisest to adopt. He asks whether it is better to return the

intestine into the abdomen, and leave the edges of its wound as near as possible to the opening through the parietes, with the hope that nature will secure it there by the adhesive inflammation—or whether it is more advisable for the surgeon to fix it in the place alluded to by means of suture through the bowel or the mesentery? From his own experience, founded on dissection, as well as experience on the lower animals, he concludes that the following procedure is the best.

"If the wound of the intestine be through the whole of its calibre, extending to the mesentery, or at any rate, implicating a large portion of the cylinder, I then should recommend suture; dangerous as it may seem to be, it is yet to be considered the only means left to secure the position of the intestine, near to the outer wound; but if, on the contrary, when the wound extends only through a small portion of the calibre, the suture need not be used, for nature immediately, by the adhesive inflammation, not only unites the edges of the wound of the intestine and parietes together, but also, by the same process, provides a perfect barrier to the discharge of feculent matter into the cavity of the abdomen." 266.

And again, Mr. Cooper observes—

"I have made several experiments in the endeavour to draw some just inference as to the best mode of treatment in cases of protruding wounds of the intestine, but I fear, from the experiments being made upon lower animals, there is much danger in drawing too hasty deductions from any supposed analogy between the condition in which the human subject would be placed under the same circumstances with them; at any rate, I discovered that the difficulty in preventing the escape of fæces into the abdomen, was exactly in proportion to the size of the opening in the intestine; and would recommend that where the opening was large, whether from accident or disease, as in cases of strangulated hernia, that sutures should be employed in such a manner as to prevent any portion of the wound opening into the cavity of the abdomen. I have never seen an accident of wounded parietes of the abdomen, with protrusion of injured intestine, except in cases of gun-shot wounds, which were removed from my care immediately, and have left no further impression upon my mind, than the recollection of the immediate prostration which follows such accidents. I shall, however, describe two or three cases of strangulated hernia, in which the intestine had been found either sphacelated or ulcerated; and leading therefore to the same surgical considerations as belong to this class of abdominal injury." 267.

*Case.* A man, aged 56, was admitted into Guy's Hospital with a strangulated scrotal hernia, from the symptoms of which he had suffered for nine days. On performing the operation, a large portion of dark-coloured omentum was exposed, covering a considerable knuckle of intestine. This adhered to the sac but was readily separable from it, and although dark coloured, had not, to Mr. Cooper, the appearance of having totally lost its vitality. He accordingly returned it into the abdomen, leaving it as near as possible to the mouth of the sac. Immediately on being put to bed, the patient began to experience a sensation of shivering and cold, whilst the pulse was feeble, and the body bedewed with a cold and clammy perspiration. By means of heat and of stimulants he rallied, but about the middle of the night he was seized with a violent pain in the abdomen, and at five in the morning collapse came on and he died.

Upon examination of the body after death the pelvis was found nearly filled with fæculent matter; and upon searching for the opening in the intestine, through which it had escaped, a small ulcerated orifice was found,

accounting at once for the sudden dissolution of the patient. The character of an opening in an intestine, will always shew whether it has been the result of violence or of disease; if of violence, the opening presents a thickened protruded edge, produced by the eversion of the mucous membrane; while on the contrary, if it be ulcerated, the opening presents a thin edge, terminating by peritoneum instead of mucous membrane, in consequence of the much greater rapidity with which ulceration goes on in the mucous, than the serous membranes.

Mr. Cooper has anticipated, but not satisfactorily replied to the objection, that this case is scarcely calculated to illustrate the doctrines previously laid down. The next case is still less appositely introduced, being merely an example of the safety with which portions of omentum may be cut away. He offers an incidental observation on the mode of removing omentum, which appears to be not insusceptible of criticism. He remarks that care must be taken in excising it not to cut through the vessels in which the blood still retains its fluidity, or else there will be occasion for the application of ligatures, which must diminish the hope of recovery from their tendency to produce peritoneal inflammation; and if they be not applied the danger is equal from the effusion of blood into the cavity of the abdomen. If, indeed, the portion of omentum to which the ligature had been applied were returned into the abdomen, the fear would be founded in reason and experience. Mr. Earle having cut such ligatures close, and returned the whole into the cavity of the peritoneum, abscesses long afterwards formed at the umbilicus, and discharged the knots that had been tied. But Mr. Brodie, and perhaps other surgeons, has advised that the omentum should not be reduced, and that one end of the ligature being left long, should hang at the external wound, and admit of subsequent removal. If it were always possible to comply with Mr. Cooper's proposal, and if we only needed to cut omentum where it would not bleed, we could not contest the superiority of his advice. But we cannot avoid entertaining a doubt, that we cannot at all times practice our incision in such favourable circumstances, and that omental vessels may not bleed when divided, but give rise to hæmorrhage afterwards.

The next point which occupies the attention of our author, is rupture or laceration of the viscera, without any wound in the abdominal parietes. Some interesting cases are presented to our notice. We will try to select and abridge the details.

CASE 1.—*Rupture of the Jejunum—Peritonitis.*

A man, æt. 30, was taken into Guy's Hospital Nov. 3d, a lightly laden cart having passed over his abdomen. In the evening Mr. Cooper found him lying on his right side, with his knees drawn up, and his head and shoulders inclined forwards; he complained of violent pain attacking him in paroxysms, like those of colic, attended with great tenderness diffused over the whole abdomen. His abdominal muscles were strongly contracted and tense; his expiration was accompanied by a deep sigh; he had twice vomited, and upon one occasion, a small quantity of blood; his pulse was not accelerated nor feeble, and his skin perfectly warm: leeches were aplied to the abdomen, fomentations were also ordered, and thirty drops of tincture of opium were given. A dose of calomel and opium was exhibited at night.

The nausea and other symptoms continued next day, the pulse was

84 and hard, and the tongue was covered with a slight brown fur. *Leeches —calomel and opium—castor oil injection.* Towards noon the pain in the abdomen increased, but the vomiting soon afterwards subsided. *Bowels opened by castor oil injections—an opiate afterwards given.*

After the motion, which contained a small quantity of blood, he immediately complained of a great increase of pain in the right hypochondriac region, the pain being also aggravated by inspiration. The respiration was thoracic—the countenance anxious—decubitus dorsalis—pulse 126, very small and compressible.

He passed a very anxious night—next morning he was sinking, and in the evening he died.

The examination of his body presented the following facts. Externally there was only a slight abrasion to be perceived near the left anterior and superior spinous process of the ilium ; no ecchymosis, except from leech-bites, nor any lesion of the abdominal parietes ; on opening the cavity of the abdomen, a large quantity of fluid, partly fæculent, but principally serous, was discovered ; the peritoneum was extensively inflamed, most intensely in the left iliac region and over the bladder : in both of these situations the intestines were glued together. Upon minute examination of the intestines a laceration was found in the jejunum, which extended transversely through the bowel into the mesentery ; the edges of the divided intestines were separated from each other, and the mucous membrane everted. In the cellular membrane, connecting the peritoneum to the lumbar muscles on the left side, a very considerable ecchymosis or infiltration of blood existed, and a similar extravasation was found about the pancreas.

In this case there was no considerable collapse, and the more severe and decisive symptoms followed the purgative effect of an injection. This circumstance is adapted to afford a warning against the rash exhibition of aperients. Perhaps in such a case the abstraction of blood from the arm would be more efficient, in the commencement of the treatment, than the mere application of leeches to the abdomen. We certainly prefer this bolder practice in cases of injury of the three great cavities.

Case 2.—*Rupture of the Jejunum from a kick upon the Scrotum.*

A man, aged 40, received, at 11 o'clock at night, a kick on the right side of the scrotum. He had never previously observed any hernia, nor indeed any swelling whatever at the part. Immediately after the reception of the blow, he was seized with acute pain in the direction of the cord, succeeded by every symptom of collapse.

Next morning he was admitted into Guy's Hospital, and now he was the subject of an oblique inguinal hernia. This was returned with facility by the dresser, but on moving the patient immediately afterwards, it again came down, and the pain produced by the slighest pressure forbade any further attempt at its reduction. The pulse soon rose to 100, the respiration was hurried, the countenance indicative of suffering, and the pain was chiefly referred to the scrotum.

The progress of the symptoms demands no particular remark. Sickness was established, and the usual features of abdominal inflammation were present. The treatment consisted of three successive leechings—a bleeding to eight ounces, at 5, p.m. the day of his admission—at 9, p.m. a blister to the

abdomen—a dose or two of calomel and opium—and two or three injections. *Dissection.* On laying open the cavity of the abdomen the intestines were found to be highly inflamed, and agglutinated at every point by the effusion of lymph. Upon throwing air into the calibre of the intestines, by means of a blow-pipe, a rupture of the jejunum was discovered about an inch and a half above the internal ring, and through this opening a quantity of fæcal matter had extravasated and inflamed the entire peritoneal cavity, even upon the under surface of the diaphragm. The hernial sac was thickened and ecchymosed at its lower part, and contained a portion of intestine more congested than the rest of the canal.

Mr. Cooper doubts the veracity of the patient, in asserting that he had not been subject to hernia prior to the blow. Perhaps the same remark on the subject of general bleeding might be applicable to this, as to the previous case.

CASE 3.—*Rupture of the Spleen, &c.*

A carter, aged 21, was admitted at 5. p. m. on the 15th October, 1830, a loaded waggon having passed over his loins. The attendants stated that he spat blood on his passage to the hospital. He was received in a condition of extreme collapse. His breathing was frequent, difficult, and rattling, and he expectorated at intervals mucus, tinged with blood. He also complained of great pain in the region of the umbilicus.

At 8, p.m. the pulse was 100, small, feeble, and fluttering—he suffered from extreme restlessness, combined with intolerance of motion in consequence of pain. It had been necessary to draw off the urine with a catheter; six or eight ounces, tinged with blood, were abstracted. *Opiates, with warmth to the feet.*

The symptoms continued, with no further alteration than their mere aggravation would imply. At 6, p.m. of the following day he expired.

*Dissection.* On opening the abdomen, about a pound of blood was discovered, arising from a rupture of the spleen, which was torn into two parts. The diaphragm was also ruptured a little above the œsophagal opening; and there was also an effusion of blood between the liver and peritoneum, in quantity sufficient to separate them to a considerable extent. The kidneys were, in a like manner, separated from their peritoneal covering by blood. The stomach, bladder, and intestines, presented a natural appearance. The inferior part of the left lung was much altered in its appearance, and much gorged with blood. The heart was natural, but there was some effusion between the pericardium and the pleura. A larger quantity of mucus than usual was found in the bronchia. The brain was not examined.

The next and the last case is one of rupture of the kidney. The patient was a boy, and the injury was occasioned by the handle of a truck being swung, with great violence, against his abdomen. The collapse was excessive and immediate, and he died in about an hour and a half after the reception of the injury. On opening the abdomen, a large quantity of coagulated and of fluid blood was discovered in its cavity. This had proceeded from the left kidney, the part of which above the renal vessels was completely severed from that below them.

This concludes our notice of Mr. Cooper's volume. We have not space for even the brief language of ordinary commendation. We would simply recommend it to those who are inclined to study facts.

# Periscope;

OR,

## CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

### I.

### SPIRIT OF THE ENGLISH PERIODICALS, AND NOTICES OF ENGLISH MEDICAL LITERATURE.

I. The Treatment of Asiatic Cholera and Chronic Diarrhœa, with Antimony. To which is appended instructions for the guidance of the Public, the most simple and efficient, to diminish its Mortality. By J. Langford, M.R.C.S., late Resident Surgeon and Superintendant of the Knott Mill Cholera Hospital, Manchester. 8vo. pp. 34, Ridgway, October, 1833.

When the cholera was raging at Manchester last year, Mr. Stott, of that place, shewed Mr. Langford a notice in the Medico-Chirurgical Review, of Dr. Reich's paper, published at Berlin; wherein Dr. R. details a very successful mode of treating cholera by tartrite of antimony. The practice was adopted by Mr. L. at the cholera hospital, and the present pamphlet is the result. Mr. Langford passes very slightly over the etiology and the pathology of the disease, of which, indeed, but little is known, in order that he may concentrate his remarks upon the treatment.

Our author divides the disease into three stages—in all of which he assumes the presence of serous evacuations—and arrested secretions, combined with the other usual symptoms of the malignant cholera, as necessary to constitute the Indian disease, so called.

"The first class or division—with *the skin* and tongue *warm*, and *tolerable* pulse.

The second class—the skin and tongue *cool* or icy cold, with *feeble* pulse.

And the third class—pulseless, and every symptom in an aggravated ratio."

By the numerical returns at the end of the pamphlet, we find that the first class was treated with great success by the antimonial plan, and without any consecutive fever. Amongst the second class were many patients of low dissolute habits and emaciated constitutions, labouring under organic diseases of old standing, with much less chance of recovery, in fact, than many in the third class. In the third class there were seven individuals who had bloody stools.

The plan of treatment which our author has followed is the exhibition of small and repeated doses of tartarized antimony, aided by *copious diluents*, till full, efficient, and continual vomiting is produced—not by one solitary effort, but by gentle, continual means.

"In proceeding with this stage of my communication, I shall confine myself to the explanation of that plan of treatment which I have proposed, and which upon a numerical return I found *decidedly* to give the most satisfactory result, more particularly in that distressing and difficult period, the pulseless collapse. This plan consists in administering small and repeated doses of *Tartarized Antimony*,* aided by the

* "Dissolve ten grains of tartarized antimony in seven and a half ounces of distilled water, with half an ounce of rectified spirit, of which give half an

most *copious dilution*. I order at least *half a pint* of toast and water, if preferred, or even common water, either tepid or cold, as may be most agreeable, to be given at one draught every *ten minutes or quarter of an hour*, to keep up full and *efficient* vomiting, taking care to avoid *ineffectual retching*. Some patients however have taken gallons in a few hours: no sooner is it swallowed, than it shortly returns, giving, as the patients *invariably express*, continual relief; as the gorged vessels of the venous system are for a time unloaded, and the sense of oppression at the epigastrium is diminished; and from the relief thus obtained, fluid is again and again demanded, affording us the opportunity of repeating this restorative process.

This continual operation of vomiting appears to me to be conducive to the following ends:—

To unload for a time the large internal vessels of the venous system, which during collapse are gorged with deteriorated blood, which blood is deprived of those functional powers usually attributed to its office. To call into action the diaphragm, by which the vitalizing influence of the respiratory functions are aroused. The heart by the same operation is unloaded of its vitiated fluid, and the vascular action is frequently increased to the extent of producing a pulsation at the wrist, which before was imperceptible. An immediate change will be observed in the fluid ejected, in which FLOCCULI ARE NO LONGER TO BE SEEN, and the *quantity* ejected, which before was copious and exhausting, is now diminished, not exceeding in quantity the amount administered, indeed less—*direct evidence of a specific change in the morbid action of the stomach*. This is an important fact.

This amended action, when produced, will be observed to continue its course through the whole alimentary canal, the stools becoming thicker or more gruelly, although from the greater extent in the intestinal surface, the dejected fluids will require a longer period to give the same evidence of their improved condition. So that a double action is observable in this stage (collapse) to be the result, viz. a continual mechanical action which contributes to overcome the torpor of the vascular system, and the atony of all the functions requisite for the restoration of the animal economy, equalizing the balance of the circulation, arousing the nervous energy; and, secondly, having a specific effect most probably on the mucous membrane of the alimentary canal, causing a diminution of the excessive exudation; permitting, through these media, the conservative principles of the constitution to rally against the morbid impression, under which the nervous system is rendered torpid; and, through that system, all the functional derangements appear to have their origin.

The very character of the vomiting is changed, it is no longer the *characteristic squirt*, which appears to be the sole effort of the stomach, but it assumes a general muscular action decidedly *remedial*."

In aid of these measures, our author has often applied, with advantage, cloths dipped in warm spirit of turpentine, over the thorax and abdomen, for the space of twenty minutes, and kept hot by towels. Frictions he considers as useless, or even prejudicial, exhausting the patient, without remedying the symptoms. The vomiting appears to relieve the cramps by diminishing the internal congestion, and more particularly, the author thinks, by allaying the morbid irritability of the intestinal canal. He continues the antimonial solution, every two hours, till the biliary and urinary secretions are restored. When bile is fully apparent in the ejected fluid, he gives an enema of gruel, salt, and oil, together with a small dose of castor oil by the mouth.

"As the various functions are restored from the torpor of collapse, I view the operation of the antimonial in a different light; the system is now disposed to run into an excess of action, and be destructive by consecutive fever.

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ounce every two hours. Toast and water ad libitum. Give no other remedy."

May not the known powers of this medicine, by equalizing the circulation, now act upon a conservative principle, and thus avoid, as it does almost in toto, this consecutive stage? The remedy is by this time usually *tolerated* by the stomach; and the vomiting ceases.

I have seldom had to encounter consecutive fever; but in every case I have been enabled to arrest its progress. When there has been a long state of pulseless collapse, say for forty-eight hours, it is not to be wondered if there is some slight succeeding excess of action, even under this treatment. The usual *absence* of this consecutive stage, which is practically found as destructive as the stage of collapse, must give *considerable weight and importance* to this treatment."

The return of secretion giving proof of the system passing into another state, great care is necessary to save the *head*. If the antimonial was not sufficient, aided by enemata, our author immediately applied leeches to the head.

The following is the result of 94 cases treated on the antimonial plan. In 28 cases of class 1, all recovered—out of 36 cases of class 2, twenty-five recovered and eleven died—out of 30 cases, class 3, eleven recovered and nineteen died. Total—64 recoveries to 30 deaths. A letter from Mr. Ollier, and one from Mr. Stott, are appended, confirmatory of Mr. Langford's statements, and of the success of the antimonial treatment in their own hands. The following concise code of instructions, for the guidance of the non-professional public, concludes the brochure.

"No time should be lost in sending for medical aid.

This disease more frequently commences during the night, in a violent form, indicated by *vomiting* and *purging*, the severity of which is usually so overpowering, for the space of from one to four hours, as to bring the person immediately to a state of disease, too often both hopeless and irrecoverable. This form of disease cannot be mistaken.

I beg to press upon attention the high importance, and the great advantage of obviating the *loss of time*, which must pass, before aid can be had.

In nine cases out of ten, the patient has been labouring under the attack several hours, before medical aid is had recourse to, when the disease is found in *an advanced stage*.

The moment it is *suspected* to have appeared, by *vomiting and purging*, or either, *take one-fourth part*, or *two tablespoonfuls* of the following mixture, every *two hours*.

Tartarized Antimony, two and a half grains; Distilled Water, four ounces; Rectified Spirits, two drachms. This mixture to be kept ready in the house.

To aid *this vomiting*, drink half a pint of tepid water, every quarter of an hour, until medical aid arrives to direct its omission or continuance.

For children under *seven*, *half* the dose above named; and under *two* years of age, a *teaspoonful*. To be most particular in aiding the vomiting, by *draughts of tepid water*, or toast and water; if during the night, warm water cannot be had, drink cold.

By following these simple instructions, the prompt advantages derived, are, that an important remedial action is immediately produced; preserving the heat; relieving the cramps, if present; and checking the *excessive purging*, which otherwise would be going on; and too often, even *in one hour*, bring the person to that state, in which death makes sure of his victim.

I have generally averted the disease by this *efficient* and *simple* practice, if had recourse to *without* any *delay*, and restored the patient in a few hours. In others it has conducted to a favourable issue.

The *loss* of *life*, by this *early attention*, being *most insignificant*, disarming at once, this scourge of its dreadful mortality.

Again, I say, do *not permit* delay.

Use *no other* remedy; rigidly *abstain* from laudanum, brandy, and stimulants."

We confess we attach considerable importance to this pamphlet, since we had an early prepossession in favour of

emetics in cholera, from observation of its effects in driving the blood to the surface, and relieving internal congestion. If the reader will turn to page 276, Vol. XVI. of this series, he will see that the Editor of this Journal proposed the plan of emetics, in a paper read at the Westminster Medical Society, on the 26th November, 1831. The 15th proposition begins thus: "The first internal remedy which I propose, both in aid and in imitation of Nature, is a stimulant emetic, &c." *ut supra.*

We recommend in the strongest terms, to our professional brethren, a full and fair trial of the plan proposed by Mr. Langford.

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## II. NERVOUS AFFECTIONS OF VOLUNTARY MUSCLES.

Mr. ED. LEE, in a sensible little work on nervous disorders in general, has made some observations on those affecting voluntary motion. They depend, he remarks, on a state of excitement or atony of the faculty of volition; and may be induced by moral impressions or visceral irritation. In treating these affections, the patient's mind should be abstracted as much as possible from their complaints—mental or bodily irritation removed—and the functions of the chylopoietic organs improved, as far as in our power. We subjoin two short cases, from hospital practice.

*Case* 1.—"An unmarried female, æt. 20, was admitted into St. George's Hospital, in July, 1827, having two months previously fallen and hurt her left elbow and hip. Considerable pain and discoloration of the elbow were caused by the accident, but subsided after the employment of a liniment. When received into the hospital, the elbow-joint was in a state of semiflexion, and the fingers and thumb firmly closed. While the patient was awake, manual attempts to overcome the contraction causing a kind of hysteric paroxysm. She complained of pain extending from the elbow to the wrist; this was aggravated by moving the fore-arm, and by lightly pinching up or tapping the skin. The sensibility of the skin in other parts of the body was also morbidly increased, but her general health was not impaired. Mr. Brodie, whose patient she was, prescribed the application of the spirit lotion of the hospital to the elbow, and the following medicine: Tinct.: Valer.: Ammon.: Vini Alôes āā ℥j. sexta quâque horâ ex aquâ.

The patient feeling relieved by these means, they were continued, with the occasional employment of the shower-bath, for about a month; at the expiration of which period, the pain having entirely subsided, and the patient having regained the use of the elbow and hand, the contraction recurring only for a short time at distant intervals, she was placed on the out-patients' list."

The second case is extracted from Mr. Lee's notes, while attending the hospital at Florence.

"*Dec.* 10*th*, 1830.—Three months ago, a girl æt. 17, in whom menstruation was occasionally irregularly performed, but healthy in other respects, on descending into a close cellar, fainted, and fell to the ground. In falling, she struck her neck against some projecting body; abscess formed in the situation of the injury—was opened—and healed at the expiration of six weeks. Some days before her admission to the hospital she lost the use of her left arm, and shortly after, that of the left leg; the extremities of the right side subsequently became paralytic, and she was brought to the hospital in this state in the beginning of November. The intellect, the functions of respiration and digestion continued unimpaired, as did those of the detrusor urinæ and sphincter ani muscles. The case was considered to be inflammation of the spinal marrow. Repeated bleeding, the application of leeches and blisters along the spine, low diet, the exhibition of strychnine, and the formation of a sore by caustic in the situation of the previous abscess, produced no amelioration.

A fortnight ago she suddenly heard of the death of a near relation; and,

from that time, constant movements of the limbs succeeded to the state of paralysis in which they had previously lain. These movements have continued ever since, the arms are incessantly beating against the breast, the thighs and legs alternately bent and extended with violence. Though pale, her countenance does not indicate the existence of organic disease, the intellectual and vital operations are not impaired, she answers questions readily, the tongue is clean, the pulse weak. The prognosis delivered by her physician is unfavourable. She takes no medicine, but leeches are occasionally applied along the spine.

*Dec. 24th.* The depletory measures have been discontinued, and the quantity of food increased, since the 14th. The patient has had, during the last two days, several hysterical symptoms, such as tremulous motions of the eyelids, loss of voice, occasional fits of laughter. The movements of the limbs are less violent, and at times cease altogether, she sleeps well, and her appetite is good.

*Dec. 30th.* The patient, having been allowed a more full diet, is much improved in appearance; the movements are now almost entirely confined to the hands, and cease if her attention can be drawn off from her complaint."

Some cases are also given from Sir Charles Bell's Exposition, and other sources.

Mr. Lee's little work is of a practical nature, and worthy of attention, the author being a gentleman of observation, who has carefully studied his profession in this and in other countries.

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III. Compendium of Osteology; with an improved Method of preparing Bones. By Dr. Witt.

There is considerable originality, as well as ingenuity, in this Compendium. The following extract will show the grounds on which Dr. Witt's peculiar mode of describing the bones is founded.

"In the following Tables an attempt has been made to convey a methodical knowledge of Osteology—the result of a practical mode of teaching this branch of anatomy. This mode consists in taking up each bone in succession, and placing and retaining it in one given and fixed position until the different parts presented to the eye—whether processes, foramina, or grooves—are *read off* in this lucid order and succession. The bone is then turned as upon a given axis, to bring into sight a fresh collection of parts. The advantage of this simple plan can scarcely be imagined without actual experiment.

In describing any bone, care must be taken not to pass over a single point enumerated, whilst it is retained in its first position; and when every part shall have been described in that view, it then must be turned to its next aspect. Every thing depends upon this careful consecutive description; and when the knowledge of a bone shall have been acquired after this method, it will be really difficult for any part to escape notice, or fail to be impressed upon the memory; the eye forms a correct picture of the bone—the mind seizes the arrangement—and the memory retains the classified knowledge thus systematically acquired."—*Pref.*

How far this mode of description may be superior to that in common use, it is impossible for us, at present, to predict. Time alone can solve that problem. In the mean while, we have no doubt that any ocular auxiliary to the memory, that can be brought into operation, will be of great advantage to the student. The more senses that can be impressed, at the same moment, with any image, the longer the impression will last on the sensorium.

The mode of preparing bones for osteological purposes is conveyed in the following extract.

"About twelve years since my attention was particularly directed to this subject, by finding that some bones which I had macerated were unusually white, and free from smell. I continued for several subsequent years to macerate and prepare bones, as I conceived, precisely upon the same plan as that in which the maceration had been so successful; but although some prov-

ed tolerably white, the majority were cleaned with much difficulty, and when the ligamentous attachments were removed by dint of hard scraping, the bones were ever after yellow at the extremities, and had a more or less offensive smell. After much thought on the subject, I could not discover wherein my method differed from that in general use, but the preparation of another skeleton, about four years back, furnished me with materials whereupon to build something like a tangible theory; and this theory having been verified by repeated subsequent trials, I feel confident in recommending the practice founded upon it, although perhaps the reasons advanced may not be altogether conclusive. Two words, however, if properly understood, will furnish all the information that is necessary, viz. UNINTERRUPTED PUTREFACTION; for if the putrefactive process be in any way interrupted, the bones will never be clean. In order to obtain this end, the following directions must be scrupulously observed:—It is desirable to get the animal, of which a skeleton is to be made, as few hours after death as possible, while the blood is in an almost fluid state; and having taken off the muscles tolerably clean, and separated every bone, they should be immediately thrown into cold water; the water should be changed every twelve hours for three or four days, until it becomes no longer tinged with blood. A tub, or large earthenware vessel, must then be procured—if a tub, it must be well made to secure it from leaking during the long period required for maceration, and of such a size as to hold a sufficient quantity of water, over and above that which covers the bones, to allow for the waste by evaporation. Evaporation entails two difficulties, for if it go so far as to leave the ends of some of the longer bones projecting out of the water, they immediately become quite black, and if fresh water be added to cover them, the whole putrefactive process is arrested: hence the vessel must stand in some covered out-house, secure from the admission of rain, and from the danger of the water being drunk by rats. So far as I have observed, the vessels should be merely lightly covered over, as a certain access of air appears necessary—for, on one occasion, being without a convenient place, I buried some tubs during the usual period, when the bones proved the most offensive that I ever prepared, and it was an endless task to get off the ligaments.

Should all go on successfully, and the process be in no way interrupted, either by evaporation or by leakage, in the space of about six months, the bones may be washed perfectly clean with a common brush, the ligaments and muscular attachments may be pushed off like a cake from the ends of the bones, and then if they be held up, a thick fluid will be seen to exude through every aperture from the interior, proving that the putrefactive process has gone on in the interior, with the same happy result as on the exterior. It is hardly necessary to observe, that the internal and external putrefaction must go hand in hand in order to procure a clean bone, and this I apprehend to be the general source of difficulty. A vertical section of any of the cylindrical bones in my collection exhibits the interior even whiter than the exterior; and the cancellous structure is a beautiful white net-work, unsoiled by any medullary matter. After the bones have been well brushed, they should be soaked in clean water twenty-four hours, and then carefully cleaned with a scalpel from all ligamentous and cartilaginous matter that may be found still adhering, but the bone should in no way be scraped more than is absolutely necessary, as it is deprived of all its minute processes and distinctive characteristics. The long cylindrical bones should be placed upright upon their extremities for a short time, in order to allow of the entire escape of the medullary fluid. To cleanse them from any oleaginous matter, whether external or internal, I have generally soaked them for the next forty-eight hours in a solution of subcarbonate of potass, in the proportion of about a pound to each gallon of water, after which, they should again be well washed and left for a short time in a large quantity of

clean water, and then wiped with a dry cloth. The bones after this should be carefully laid upon a clean deal board, and exposed for a few days and nights in the open air, taking the precaution to turn them now and then.

As to the exact period for maceration, six months has been stated as a general time; but this is found to vary, as a set of bones will macerate in almost half the time during the summer months, to what will be required in the winter. The bones of small animals, and of birds also, require a comparatively short period; and it may be observed that the bones of the ruminating class of animals always macerate more speedily than those of the carnivorous."

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## IV.

## THE PRECEPTOR,

### DIDACTIC AND CLINICAL.

### No. I.

The publication of prelections, at least during the life of the lecturer, and especially during the delivery of the lectures themselves, forms a kind of epoch in medical literature; and the introduction of such a procedure is unquestionably due to our indefatigable and bold contemporary—the LANCET. At first the practice gave rise to warm discussions, both moral and legal—and the longest head in the law—that of Lord Eldon, was not a little puzzled and perplexed as to the justice—or rather the legality of the proceeding! The knotty point was, at length, settled in a true forensic style. If a lecturer had a good memory, and could deliver his lecture off hand, without book, he was lawful game, and his prelections might be published the next day at Charing Cross, or in any other way that the note-taker chose. But if the lecturer had a treacherous memory, and was obliged to write down his lectures, as some preachers do their sermons, he was under the protection of the Court of Chancery, and it was unlawful to publish his lectures! There is a nice point of distinction, both in law and justice, for you!!

There is now, however, no question about the legality or the morality of the thing. So soon as teachers perceived that there was more gain than loss by the publication of their lectures, the question of *right* was waived, and the publisher was not merely permitted—but assisted in the publication. This being the case, and most of the lectures being either furnished or revised by the teachers themselves, their doctrines and practices become just as legitimate objects of criticism or review, as any regularly-printed work, presented to the public through the usual channels.

Medical lectures; are, or ought to be, a compendious and lucid enunciation of those doctrines and practices which are most generally adopted by the most experienced part of the profession—and not of the peculiar opinions or modes of treatment embraced by individual lecturers. The latter should be mere sprinklings—and the more they engross the body of the lectures, the worse it is for the pupils, when they come afterwards to put the precepts of the schools into practice. This eclectic mode of tuition, however, is not the most attractive, either for the student or the public—and, therefore, it is every day more and more neglected—we might say avoided. It is not unusual to see a whole course of lectures, consisting of a scarcely-interrupted string of egotisms—of what "*I* do—what *I* think—and what *I* would recommend." This is a much easier mode of tuition, than a comprehensive exposition of what the most experienced practitioners do, think, and recommend generally. It is much more acceptable, too, to the pupil—who goes away an echo to the EGO; proud and happy that he has only to put his preceptor's edicts into execution, to become as distinguished as the prototype! Teachers well know the propensity of neophytes, "jurare in verbo magistri"—and he must be an inobservant or very limited practitioner, who does not every day trace the master in the man—the school, rather than

the science, in application to actual practice. The consequences are, contracted views, disappointments, and embarrassments, from want of resources. Were it not a violation of private confidence and honourable secrecy, we could adduce the most striking examples of the mischief which results from the attempts of the young practitioner to wield the *extraordinary* arms of his master. *Heroic* remedies are not safely administered—except by HEROES:—and even these last sometimes cure more diseases in the lecture-room, than in the sick chamber. The great difficulty, in practice, is to know the *when* and the *where*, to employ active remedies:—the great object of the student, on the other hand, is to arm himself with the QUO, rather than study the QUOMODO. It is not nearly so much to the inefficacy of medicine that we owe failures, as to the misapplication of it.

Lectures are of much greater consequence than books—because they are delivered to those who are incapable of judging what is right from what is wrong—whereas books are addressed to practitioners, who are or ought to be, capable of judging of their merits by the sure test of experience.

Under all these circumstances, we conceive that published prelections are legitimate subjects for criticism, and that they come fairly under the *review* of the periodical press. They are not, however, subjects for analysis, because like *books of elementary instruction*, nine-tenths of them are or ought to be matters as familiar as A. B. C. to practitioners. It is only, as we said before, to peculiarities, or personal opinions and practices that our attention will be directed. Neither shall we attempt to notice *all* the lectures delivered in this great metropolis. Some of them are too good—and require no critical notice—others are too bad, and incapable of correction. It will be chiefly to clinical lectures that our critical notices shall extend. In this first paper, however, we shall only notice a few of the introductories of the present medical session. In other parts of our Periscope, other lectures will be reviewed.

## THE INTRODUCTORIES.

1. DR. GRANT. Among the introductories of this season, that of Dr. Grant, at the London University, claims especial notice. Its facts are divested of verbiage—and its counsels are full of wisdom. It is free from boasting vanity—and indulges little in visionary anticipations of unreasonable prospects and success. Dr. Grant briefly alludes to the economy introduced into all the arrangements of the University, and dwells, with reason, on the advantages which must follow the erection of a clinical hospital. The application to Government for a charter and power to grant degrees, is said to have been favourably received, in high quarters; but we greatly doubt whether the University ought to, or need look to any other auxiliary than its own celebrity, for attraction. That celebrity must be the result of talent and industry.

The College of Physicians is truly represented as not only void of all utility to the profession at large; but as injurious, unjust, and oppressive. "The object of such a College is absurdly perverted, and very few of the eminent physicians of England can obtain a fellowship, or expect to enjoy those advantages and privileges which are attached to it." It is anticipated by Dr. Grant, that a scrutinizing legislature will retain whatever is good in the old institutions, and correct those abuses which have only the sanction of custom and antiquity. The advice to students, in respect to their studies and conduct generally, is judicious and quite unobjectionable. We shall conclude this notice with the following biting, but just reflection on the system of apprenticeship—a system against which we have always waged war.

"The system of apprenticeships to apothecaries and surgeons is a system of menial occupation, idleness, or vice; it is a remnant of the low and ignorant state of the profession in olden times; it serves only to secure pecuniary advantages and gratuitous service to a few interested men, but is ruinous to the education and character of our

youths, degrading to the medical profession, and injurious to the community at large."

2. DR. WATSON. Dr. W.'s introduction this year, is a temperate and judicious appeal to the best feelings and best interests of the students. While he gives due credit to the exertions of the Apothecaries' Company in raising the scale of education among the great class of General Practitioners, he does not conceal his disapprobation of the apprenticeship system. He urges a regulation that may abridge the indenture and enlarge the curricula of the schools. On all branches of elementary medical education, Dr. Watson's advice is sound. On medical politics, beyond the allusion to apprenticeship, Dr. Watson does not touch. The leaden sceptre of the College, dark and heavy as the sooty columns of the portico, hangs over the head of every FELLOW, and threatens to descend like the guillotine, and cut short any sentiment of reform not congenial with the despotism of the temple in Pall Mall East! The spear of the Cossack and the bayonet of the Croat, do not more effectually quench the fire of liberty on the plains of Poland and Lombardy, than does the mace of our Eighth Henry, put down every expression of liberality in a body of men who ought to take the lead in medical literature and science!

3. MR. WARDROP. It is not stated where Mr. W.'s introductory lecture was delivered; but it appears to be rather an introductory preface to a series of surgical essays, than a viva voce lecture to a class. Be this as it may, the address turns almost entirely on *Order* and Classification. We are glad to have Mr. Wardrop's authority for "ORDER being a faculty of the mind," exemplified by the child, "who begins to select and arrange such material objects as happen to be within his reach." Mr. W. has a large family and therefore must have had ample means of observing the propensities of children. For our own parts, we have not been so fortunate as to have the *faculty* of order very early developed in our own family. On the contrary, the *disorder* which our children have almost daily produced among our books and papers, has tended very much to weaken our faith in the phrenological location of this faculty. We are, indeed, strongly inclined to look upon ORDER, as the offspring of reasoning and reflection; founded on observation of its utility, rather than on any instinctive or innate propensity of the mind brought into the world with us. But whether innate or acquired, we highly respect the faculty, and recommend it as strongly to our younger brethren, as Mr. Wardrop can do. The introductory lecture or preface, in question, is deserving of the pupil's careful perusal.

4. MR. GUTHRIE. We ought not to pass over the introductory lecture delivered by this able and eloquent teacher, at the Medical School, Little Windmill Street, on the 2d of October. Mr. Guthrie's medico-political character has, to our knowledge, been greatly misrepresented, and, consequently misunderstood by those who were not personally acquainted with him. He may be a Tory in general politics; but every man has a right to embrace whatever political system he pleases. We know that in medical politics he is a REFORMER, and that is enough for us. No man has laboured so hard in the work of reformation at the College of Surgeons as Mr. Guthrie. He has tried to effect reform, when some of those who bellowed loud for it out of doors, did not lend their aid in the Council-room? Mr. Guthrie may be personally vain—with that we have nothing to do. He certainly has better reason for being vain than some whom we could single out, and who are proud enough! Mr. G. avers, in his introductory lecture, that he is only proud of two things—1st. Of never having written anonymous letters or papers reflecting on the character of another—and, 2ndly. Of never saying that behind a man's back, which he would not say before his face.

Mr. G. corrects at length some misstatements that have been made respecting his negociations with the late Mr. Brookes for the latter gentleman's museum. Mr. Brookes was a wrong-headed man, as far as his pecuniary matters were concerned; and had he followed the advice, or taken the counsel of Mr. Guthrie, he would not have died in poverty. It is very unfair to attack Mr. Guthrie for the false judgment or imprudent actions of Mr. Brookes. Besides, Mr. Guthrie was, at the time alluded to, only a junior member of the Council, and consequently had but little influence among the antiquated aristocracy of Lincoln's-Inn-Fields.

Mr. G. declares, and we can bear witness to the truth of his declaration, that so far from endeavouring to support abuses in the College, and maintain the existence of those laws that are incompatible with reform—he is, in these respects, neither a Tory nor a Conservative, but a "regular Radical." It was to him mainly that provincial schools owed the privileges which they now enjoy. Mr. G. was, in fact, denominated "*their* Joseph Hume," within the walls of the College! A charge of neglect at the Westminster Hospital has been made against Mr. Guthrie—though it is well known that he pays more attention to his hospital duties than almost any surgeon in London—whenever extra-attention is necessary. It is well known that, in pecuniary matters, no teacher in London is more liberal than Mr. Guthrie—a character, indeed, which most medical men who have been in the service of their country during the late war, have brought into private life, in the exercise of their profession. One of his pupils has published a defamatory statement respecting Mr. Guthrie, which has been keenly commented on by the teacher. Mr. Guthrie's lecture-room has never been closed against pupils who were unable to pay the fee—and it has often happened that pupils have attended a whole course, without ever asking Mr. G. for permission, and then come to him for a certificate! This is not a little surprising; but it is still more surprising that Mr. G. has often given the certificate, under the above circumstances, when assured that the pupil's attendance had been regular, though furtive!

After all this, which is nothing but the truth, we cannot let Mr. G. off, without some censure. In the following address to his pupils, last year, the teacher is perhaps rather too cavalier. Mr. G. has relied on an honest consciousness of independence and superior knowledge.

"You are entitled to sixty lectures and no more, they will be on what subject I please and as I please, and I will not lecture in May, even if the course be only half completed. If you do not like this, gentlemen, do not come to me. I do not wish you to do so unless you are satisfied it will be to your advantage; and clearly understand, that you are entitled only to what I please to give you."

Mr. Guthrie, however, is much more inclined to "speak daggers" than to use them, as will be seen from the next passage.

"Now, then, what did I do from Christmas to May? I lectured three, four, and five times a-week, giving more than eighty lectures instead of the promised sixty; and in the month of April to my own very great inconvenience. When the last day came, I said, 'We have been obliged to hurry over the last two three subjects, and the diseases of the eye have not been noticed. Come to the Opthalmic Hospital every Friday, see all that is to be seen; I will make some clinical remarks to you afterwards, whenever I have time, and you will, I hope, reap a greater advantage than you could do from the delivery of a few dry lectures here without the opportunity of seeing the diseases themselves.' For all this trouble and kindness one of you has thought proper to write a letter abusing me in the Lancet, and to do it at the commencement of this session, warning students not to come to my lectures; I am afraid he must be one of the gentlemen who have some crosses against their names in my list for absence when it was called over, but whether it be so or not let us understand each other. If any one believes I lecture here for gain in money it is a mistake. The class

last year consisted of one hundred persons; sixty paid, the remainder belonging to the army, navy, old pupils, &c. did not. Of the sum received, about 120 pounds came to me, after paying all expenses. When solicited to lecture at other places, where I might perhaps have got three times as much, I have always refused. I would not go one mile further from home for the money; I would not expose my servants and horses to the cold for it, it is no object to me. The favour of the public, much I am willing to acknowledge above my desert, which has given me a large and annually increasing income, has rendered it unnecessary. I lecture, then, gentlemen, upon principle. I owe to the medical department of the army a great debt of obligation. It is to them I am indebted for the situation I hold in this metropolis; to those who served with me, and who supported me afterwards. It is little I can do for them, but I can assist their successors; when they want information I can obtain it for them; when they wish to renew any part of their knowledge, I can assist them, and instead of being sneered at, as they often were, some 20 or 30 years ago, for some trifling defect, by men who did not know them, they, and all other officers in the public service, find in me a friend, I wish I could say as capable as he is willing to befriend them. As Surgeon to the Westminster and the Royal Westminster Ophthalmic Hospitals, I think it right, whilst I have health and strength, to give some public instruction, until younger men shall arise in each capable of taking my place, when it will be most readily resigned. So far from money being my object, you all know that the door of my lecture room is never closed. That no one is ever asked for his ticket or his name. You know that some gentlemen have regularly attended for a whole season without one single word being said to them, and some have even tried my good nature so far as to ask me for a certificate at the end of it, even without paying the fee. I have never refused it after being satisfied, on inquiry, that they had duly attended."*

So much for the introductories. There were many others delivered last October, of no doubt an interesting nature; but we are unable to include them here. In succeeding Numbers of the "PRECEPTOR," we shall revert to the subject of lectures generally.

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## V. CYNANCHE LARYNGEA.

Under this head, Mr. J. Hey Robertson has made some observations, and detailed a case which we shall briefly notice. This inflammation is certainly the most dangerous of all the phlegmasiæ, not even excepting carditis or meningitis. The dyspnœa is so distressing, that it ultimately amounts to suffocation, if not relieved. The recorded cases show a lamentable want of success, even where laryngotomy is performed. Bleeding is our sheet anchor, no doubt; but it often fails. Our author *decidedly condemns it.* This is going rather too far, we suspect. "From the œdema existing (says he), I should be inclined to infer an atonic state of the vessels of the part. We do not bleed with the hope of removing this elsewhere. To bleed, in effusion of the brain, is to produce more effusion." Now the state of the parts in laryngitis, is almost precisely the same as when boiling water has been taken in mistake. The œdema is the effect of inflammation; and although we may bleed too late in laryngitis, this is no reason why we should not bleed at all. When the effusion has gone to a certain extent, and suffocation is imminent, we fear that nothing but tracheotomy will save life. Mr. Robertson, however, has proposed a less Herculean remedy—namely, the nitrate of silver, in a strong solution—40 to 60 grains in the ounce of water—applied freely by means of a small brush to the posterior fauces—between the arches—and as far down

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* London Medical and Surgical Journal, No. 89.

on the posterior of the throat, behind the uvula, as possible; but taking care that the solution do not reach the epiglottis.

Mr. R. relates the case of a young lady of very delicate constitution, who had neglected an inflammation of this kind, till the symptoms were very alarming. Only two alternatives presented themselves to Mr. R.—to arrest the mischief locally—or open the trachea. He immediately applied a solution of the nitrate (60 grains to the ounce) freely to the parts above-mentioned, which required three applications of the pencil. After the second application, she recovered her voice. On the third application, some of the solution touched the epiglottis, followed by the most distressing efforts to cough and vomit. These subsided, and the recovery was rapid.

We see no objection to this remedy, where the disease has got head, with or without bleeding.—*Glasgow Journal, No. IV. N. Series.*

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### VI. UTERINE HÆMORRHAGE, FROM PLACENTAL PRESENTATION. By Dr. J. MAXWELL.

In our respected Glasgow contemporary for October last, an interesting case of this kind is very fully detailed by Dr. Maxwell. It furnishes an example in which the os uteri remained undilated, notwithstanding uterine contractions had been frequent during 24 hours—and hæmorrhage had gone on for 36 hours, to the great hazard of the patient's life. Dr. M. observes that this case proves that there are exceptions to the general rule laid down by obstetric practitioners, namely—never to force the hand into the uterus while its orifice is rigid. We shall now proceed to abridge the case very considerably.

*Case.* On the 25th of 3d month (we wish these Quakers would compute time like Christian people), Dr. M. saw his patient, who had been flooding since the preceding day, followed by labour-pains. The uterine contractions were easily recognized by the hand—but the patient herself was something unusual in the condition of the parts, as her pains had not the effect of carrying down the uterus. On trying a pain, no part of the uterus could be felt—but with the hand in the vagina, the os tincæ was found to be firm, and of a rounded figure—the cervix uteri by no means distended. A finger passed through the os uteri did not recognize any part of the child, nor of the placenta. The hæmorrhage was considerable. The tampon and other means were used. The hæmorrhage, however, continued, together with the pains, but without dilatation of the os tincæ, and the painful alternative presented itself, of seeing the patient die exhausted, or of attempting the delivery under circumstances the most unpromising. In company with a medical friend, the delivery was determined on. A decoction of the secale cornutum was prepared, and a glass of wine and seventy drops of laudanum were given. With immense difficulty, the hand was partially got within the os tincæ, when the placenta was discovered, lining that part of the uterus immediately above the contracted part. The fingers were pushed through it; and the liquor amnii was discharged. The feet of the child were seized, and easily brought down. The secale cornutum was now given, and the hand was withdrawn with considerable difficulty. Traction by the feet delivered the child, and the discharge afterwards was moderate, She had a good recovery. Many judicious remarks, and a reference to several analogous cases, are made by the author of the paper, for which we must refer to the journal itself.

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### VII. RETROVERSIO UTERI.

Mr. Cunningham has related a case of this kind, in the October Number of the Glasgow Medical Journal, of which we shall here condense the chief features.

*Case.* Mrs. B., 13th July, 1833, stated that, for ten days previously, she had been afflicted with pains in the ab-

domen, extending down the thighs, with frequent and painful micturition —costive bowels, &c. She considered herself in the fourth month of pregnancy with her second child. Venesection, calomel and opium—cathartics.

*Monday*, 14*th*. "I was hastily summoned to her bed-side; she had passed a dreadful night, with a constant bearing-down pain, and desire to evacuate the bowels, coming on in paroxysms, resembling the last expulsive efforts of parturition—the medicine exhibited the previous day had been ejected, and the vomiting continued the greater part of the night. I now began to fear that the real cause of these violent symptoms had not as yet been ascertained, and to satisfy myself whether abortion was not a threatened event, requested a vaginal examination. Immediately on introducing the finger, it was met by a large firm ball resembling the head of a full-grown fœtus. I was for a while puzzled what to think: from the early month of utero-gestation, even granting that abortion was being effected, the fœtal head must have been much smaller than the tumour I now felt. This opinion was therefore instantly discarded. Polypi—morbid structure—impacted fæces vaguely flitted through my mind, and for the moment I could come to no satisfactory conclusion. I then began to search for the os uteri, but it was nowhere to be found. On examining per rectum, the same globular ball was felt, but no fæces. An attempt to press the tumour up gave considerable pain, but had the effect of permitting the poor woman to void a considerable quantity of urine. Another fruitless search in quest of the os uteri determined me that this must be a case of retroversio uteri, and the first that had occurred in my practice.

On inquiry, she admitted that her former attendant (who, by the way, was not a regular licentiate) had submitted her to a similar examination, and only recommended the continuance of purgatives, which were regularly vomited, and the application of a blister to abdomen!

This woman's condition had now become exceedingly alarming; her strength was much exhausted, and unless something effective were speedily adopted, she would undoubtedly sink. It became a grave matter of consideration what line of procedure to adopt. The long existence of severe inflammatory action rendered it highly probable that important adhesions had taken place, which would render attempts at replacement dangerous. I could not, however, satisfy myself that any measure short of this end would be productive of benefit. At this juncture I availed myself of the opinion of Dr. Davidson, who, after examination, agreed as to the nature of the malady, and also thought that replacement ought to be cautiously attempted. Before proceeding to act upon this determination, I introduced the catheter with much difficulty, and drew off about a pint of very turbid urine. I again endeavoured to get at the os uteri, and persuaded myself that I could feel its posterior lip high up over the simphisis pubis, but found it impossible to make it available in the operation, as had been done by Dr. Weir in a similar case.* Contenting myself with introducing the fingers of the right hand, I pressed them against the body of the uterus gently, but steadily, till it sensibly began to yield; withdrawing them, I now got the forefinger of the same hand attached to the os tincæ, and tracted with it, while the thumb pressed against the body of the tumour, and thus with little difficulty, and almost no suffering to the patient, I succeeded completely in bringing the uterus into its original position. Although much exhausted and enfeebled, the woman expressed herself gratified at the accomplishment of our object, and thought herself relieved. A clyster was given through the course of the day, which produced some evacuation—the calomel and opium were continued in small doses, and the urine regularly drawn off.

Tuesday and Wednesday passed in a tolerably easy state, but the pulse never

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* Glasgow Medical Journal, Vol. I.

decreased in number, ranging about 100, and feeble. The bowels began to act without medicine.

Thursday an increase of abdominal pain took place, which was combated by a small bleeding, and the application of turpentine cloths.

*Friday*.—Parturient pains were established, and the fœtus expelled after two or three hours' illness—placental separation tedious, but eventually brought away entire. There was little or no hæmorrhage, but the patient was now excessively exhausted, with a quick weak pulse, and hot skin. Much swelling of vulva, which remained till death.

Continued free from pain till the morning of Saturday, when she suffered another return of pain—the belly was now much increased in size, and so tender that it could not be touched, the pulse weak and fluttering. On account of her debilitated sinking state, my only resource was the application of a blister. Anticipations of success, however, were so small, that I was not surprised at next visit to find an aggravation of symptoms. Vomiting was now incessant—the matter having the appearance of coffee-grounds—the little lochial discharge which continued had a very offensive odour—the belly continued to swell; flushings—hiccup—and other deadly symptoms, betokened an early termination to her sufferings.

On Sunday she expired, six days after replacement, and four after abortion.

As this was a case replete with interest throughout, and one that had engrossed much of my attention, I was exceedingly anxious to ascertain, by a post-mortem examination, the pathological state of matters. With much difficulty leave was granted—and 30 hours after death, in the presence of Dr. Davidson, we proceeded to the

*Autopsy*.—On making a section through the abdominal muscles, the omentum and peritoneal coat of intestines were found highly vascular. On carrying the section down towards the insertion of the recti muscles, and over the situation of the bladder, a quantity of urine escaped from a wound made by the scalpel. On examination, it was found that this organ had become distended, and formed extensive and firm adhesions to peritoneum lining the muscles of abdomen. About a pound of effused fluid, with large masses of coagulable lymph, was found in abdominal cavity. The uterus was *in situ*, and contracted to its natural size; its mouth dilated and flaccid. This was the only cavity examined."

There can be little doubt that peritoneal inflammation was here the cause of death. It is probable that a more early rectification of the malposition might have saved life. The case is important, and deserves reflection.

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## VIII. Diseases of the Poor in Glasgow, from the 16th May to the 16th August, 1833. By Mr. J. A. Easton.

There were upwards of a thousand patients attended by Mr. E. during the above trimestral period, of which the mortality was 1 in 22. The prevalence of fever, dysentery, and influenza contributed to swell the list beyond the usual range. It is curious that the fatality was greater among those who were well fed and clothed, than among the most abject of the poor. Only one case of Asiatic cholera occurred, and Mr. E. details the case, and the circumstances attending it, with some minuteness, as proving the spontaneous origin of the disease. The individual was a female, who had been working harder than usual on the preceding day (29th of May), and went to bed well, but tired. At six o'clock the next morning, she was seized with diarrhœa, at first feculent, but afterwards watery. When seen at eleven o'clock, she exhibited all the features of decided cholera. By active means, chiefly by calomel in large quantities, she was saved. There was no other case before or afterwards in the neighbourhood, and, consequently, the idea of contagion was out of the question. Mr. E. concludes, and very justly, that all cases arise spontaneously, and are not propagated by personal contact.

The question will not be long agitated, since the common sense of mankind is beginning to prevail over prejudice and self-interest.

*Dysentery* has been severe among the poor. Our author's practice latterly consisted in the exhibition of opium alone, with occasional doses of castor oil—and was eminently successful. In some cases, however, it was found necessary to give calomel.

*Hæmatemesis.* This was chiefly of the passive character. Oil of turpentine, in doses of 20 drops every hour, succeeded in checking *this* kind of hæmorrhage.

Croton oil was extensively used as a counter-irritant in cynanche, laryngitis, &c. Three or four drops, he observes, are enough to bring out a papular eruption in less time, and with less irritation, than when tartar-emetic is used. But the query is, will these easy and comfortable eruptions prove as efficacious as the painful ones from antimony? We apprehend not. The very pain and irritation are the chief, if not the only causes of the consequent relief of symptoms.

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## IX. Dr. Davis on Sterility.

[Fasciculus XXIII.]

Dr. Davis commences this fasciculus by remarking, that among the least known causes of sterility are certain changes and certain states, attendant on age, on constitution, or on habit. When we cite the instances brought forward by the Doctor, it will probably appear that the epithet "least known" is sufficiently deserved. Catherine de Medicis, Queen of Henry the Second of France, had been married for ten years before she gave her husband any promise of an issue; in the sequel, she blessed him with a numerous family. Anne of Austria was sterile for twenty-two years, and afterwards gave birth to the Grand Monarque— to Louis the Fourteenth.

When we stoop from these illustrious instances of barrenness, to contemplate the malady in those humbler females, whose condition allows the eye of scientific curiosity to pry more closely into the particulars, we find that the mystery is still unsolved. Dr. Davis relates, in his prolix style, the case which we shall now abridge.

A lady, aged 24, of delicate constitution and sanguineous temperament, became the mother of her first child in the sixteenth month of her marriage. The labour was difficult, and the convalescence tedious. She endeavoured perseveringly to suckle her child; but the attempt was injudicious, and she suddenly became subject to paralysis of the muscles of the left side of her face. The suckling was abandoned— the patient went to Buxton—and, after remaining for about nine weeks, she returned to her family perfectly recovered. In a few weeks she menstruated properly, and the function was afterwards performed with regularity. But for five years no conception ensued. At the end of this period, her only child experienced a dangerous accident, and the intelligence of his freedom from danger made her, to use her own expression, "almost wild with pleasure." In this tumult of the passions, the lady was exposed to the chance of impregnation, and conception was the consequence. She afterwards gave birth to six other children.

Other cases are related, in which the cause of the sterility and the conception would seem to be equally obscure. Mauriceau attended a woman, thirty-three years of age, whose pregnancy occured nine years after marriage, and who never had another child. The disbeliever of the modest and the patient virtues of the female sex has been tempted, on similar occasions, to indulge a doubt. He has hinted that some other stimulus has been employed, than that to which the uterus of the patient has been accustomed. The scientific and experienced physician, acknowledging the fallacious uncertainty of knowledge, has felt compelled to admit his ignorance, and record the facts without an observation.

In other instances, some obvious

changes in her habits, and probably in her physical condition, has enabled the female to conceive. Mauriceau cites a case of sterility apparently of this description.

A female was barren for fifteen years. She displayed no obvious ailment for the first twelve, but during the last three years she suffered from a complaint which reduced her to a condition of extreme debility. She visited the waters of Vichy in the Spring and again in the Autumn, and drank that celebrated tonic and aperient. Her health was surprisingly improved, and in four months afterwards conception followed.

Constitutional diseases frequently prevent the occurrence of impregnation. But this is not always the case, and Capuron has even reported that women have sometimes conceived and become pregnant during paroxysms of hysteria, syncope, lethargy, and seeming suspension of all the functions of life. Venereal excesses are commonly observed to interfere with the process of conception. The public prostitutes are a striking and a very familiar example of the truth of this remark. It is probable that many of this miserable class use measures to prevent or arrest impregnation. But making all allowance for what vice, ingenuity, and necessity will attempt, it must still be admitted that insulted nature is the powerful and universal agent in occasioning the barrenness of courtezans. The abuse of spirituous liquors is also a probable and extensive cause.

The fecundity of women is influenced on a great scale by climate. Fodéré has made some remarks on this subject, which Dr. Davis has transcribed, and which we shall transcribe again.

"The human race," says M. Fodéré, "is also, doubtless, the subject of favourable conditions in respect to its existence and its means of multiplication. A humid warmth of climate is that which would appear most to suit it, not so much, indeed, as a means of long life, but as a condition of its easy and rapid propagation. The extremes of heat and cold, and of dryness and humidity, are conditions of climates less favourable to the multiplication of our species. Lower Egypt has, at all periods, been represented as an immense nursery both for the human species and of animals. The same prodigious activity of the function of reproduction appears to extend along all the great rivers of Africa. The sea-coasts, both of the Ocean and of the Mediterranean, are extremely densely populated; a circumstance as much probably to be ascribed to the sweetness of the climate as to the habit of living upon fish, of which the meat is nutritious and easy of digestion, to which the inhabitants of those countries are addicted. Higher Egypt, on the other hand, the arid regions of the interior of Africa and Arabia, and all those countries which approach the arctic pole, and which stretch beyond the sixtieth degree of latitude, are less numerously peopled. In the province of Nice, after having witnessed the greatest fecundity in the basin which surrounds that town, and which forms its immediate territory, as also that of the valley of Nervia, we are surprised on ascending the heights of Perinaldo, to observe what a great number we meet with of young women who have never menstruated, and of married women who have never had families. I have likewise had occasion to make similar observations at Beuil, a district northward of the same plains. Both of these communes have their localities on very dry and elevated tracts of country; the one however having the advantage of a warm and genial aspect, whilst the other is exposed to one of an icy coldness. Again, whilst practising my profession at Martique, a neighbourhood peopled by fishermen and sailors, and remarkable for its swarms of children, I was often consulted by the inhabitants of Cape Couronne, which was not more than two leagues from Martique, for amenorrhœa and sterility. Now the elevated platform of Cape Couronne is precisely similarly situated in respect to its climate with the heights of Perinaldo." Fodéré, Pathologie et Médecine légale de la stérileté, Dict. des Scienc. Médic. p. 517.

It may be doubted if M. Fodéré has expressed the whole truth. Much as climate influences directly the fecundity

of animals, its indirect action is perhaps the most important. The diluvial plains, the valleys, and the coasts that display their swarms of living animals, are the spots where food is most readily procured. The desert or the mountain would fail to sustain a numerous population, should such be permitted to arise. M. Fodéré may answer that this is not all, and may plainly urge that amenorrhœa and sterility are witnessed in the females that tenant these localities. But the want, or, at least, the deficiency of food, not only prevents the generation of animals, but exerts a twofold influence on those who actually exist. Marriages and prolific connections are avoided, from the consciousness of the parties that misery and want must await their offspring and themselves. This moral evil, sufficient to account for those uterine affections to which M. Fodéré has alluded, is assisted in its operation by the physical debility that the want of the comforts and conveniences of life entails. On the whole, the reflecting physician is surprised that the operation of these causes is so feeble. It may reasonably be questioned if the obvious and afflicting agency of cold, and hunger, and distress, is so unfavourable to the perpetuation of the species, as the evils at the opposite extreme, fashionable luxury and dissipation. The sturdy family of the Irish vagrant may admit of comparison with the sickly and the puling progeny of the debauched aristocrat.

Women occasionally suffer a diminution in their fecundating power, or become absolutely sterile after severe or mismanaged child-births—abortions, syphilis, or gonorrhœa—or any other cause which may alter and impair the condition of the parts. What the precise alteration may be must constitute the subject of special examination in each particular case.

Dr. Davis observes that the condition of the male is of course to be investigated, and enumerates most of the many causes of impotence on his part. Perhaps we may mention two curious circumstances to which he makes allusion. The first is an observation of Hippocrates, that the Scythians suffered from palsy of the erectores penis, in consequence of too much riding. Whether the modern Arab or the Cossack is found to display a similar infirmity, we leave to others to determine. The second circumstance is connected with a peculiar fancy of the Hottentots, who are said to occasionally submit to the removal of one of their testes, in order to improve their powers of agility.

When considering the treatment of a case of sterility, it is, or it should be, the object of the practitioner to discover its cause. It may be an unruptured hymen, the remedy for which is a crucial incision—or contracted vagina, the narrowness of which may be removed by tents or by bougies—or preternatural septa or fræna, which admit of destruction by a simple operation. The uterus may be absent, or the vagina may be filled by preternatural growths, or the cavity and passage of the cervix may be obstructed. Our readers may be aware that Dr. Mackintosh, of Edinburgh, attributes the presence of amenorrhœa to the frequent occurrence of the latter state. Consistently with this opinion, he advises and practises the use of the bougie. Dr. Davis seems to hint, that he has oftener ventured to propose this method, than succeeded in prevailing on patients to submit to it.

Dr. Davis speaks highly of the advantages derived from the employment of the speculum. He adverts to retention of the menstrual secretion in the uterus—to absence of its cavity—to obliteration of the passage through the Fallopian tubes—and to other possible organic lesions of the uterus or its appendages.

"The influence of AGE on the faculty of reproduction has already been noticed. The susceptibility to conception is said to be most vigorous between the ages of eighteen and thirty. Very early marriages are observed in many cases not to be productive till after the lapse of a few years subsequently to their celebration, when they often become so. But late marriages, such for instance as we may suppose to be contracted, on the part of the female, between the ages of 35 and 45, are much less promising than very early ones;

inasmuch as in the one case, the chances of issue improve with every year, whilst in the other they sustain a more than proportional diminution. The indications of treatment in both are in some respects founded on the same or very similar principles. They chiefly consist in the adoption of such measures as are known to be best calculated to promote and to sustain a sound state of the general health, and an accurate and well-balanced performance of the functional actions of the system."

Dr. Davis adverts to the superiority of country over that of town air, and makes the following observations on the subject.

"It would appear from the more recent population returns for England and Wales, that the most healthy districts of this country, at the present moment, in which, therefore, human life, on the average scale of the population, is protracted to the longest period, are, Cheshire, Flintshire, the Isle of Anglesea, Pembrokeshire, and Carmarthenshire. It has often been observed, that women who have had no children while residents in towns, have become immediately prolific upon going to live in the country. A respectable lady who has resided for many years in New South Wales, informed the author, a short time ago, that she had known many instances of females who had ceased to bear children in Europe, becoming the mothers of second batches of children subsequently to their emigration to Botany Bay; adding, that the fact was so notorious, that before she left that country, it was become the subject of current observation at Sidney."

The recommendations with respect to food and to exercise are too obvious to require more special reference. Dr. Davis adverts to the popular belief that some women are naturally so cold and coy, that their passions are scarcely susceptible of excitement, and their marriage is in consequence unfruitful. But such indifference to sexual pleasures is itself so unnatural a condition, that it probably depends, at least in the greater number of instances, on some peculiar affection of the organs, or moral agency of circumstances on the mind. He mentions the case of a noble duke, who, unfaithful in old age to his marriage bed, discovered, whilst engaged in the venereal act, that his younger paramour was amusing herself by blowing on a downy feather, in order to keep it afloat in the air. He supposes that such coldness was that of uncongenial ages, and concludes, in the luscious manner of Sir Peter Teazle, that there can be little community between January and May. In reading the occurrence we are forcibly reminded of the annoyance of Mr. Shandy, who, whilst occupied in the actual production of a "homunculus," was interrupted by the unconnubial remark, that he had totally neglected to wind up the clock.

It has long been noticed, and that by the admirers of the sex with regret, that the fop or the gay cavalier is often more successful in the court of Love than the man of sterling worth or profound acquirements. Perhaps the two cases related by Capuron and Pinel may serve to display the reason of the preference, afforded by female levity or instinct, to him of the spur or the sword.

"Consulted by a gentleman's wife on account of great absence of mind, and, in short, of total incompetency on the part of her husband to complete the sexual act which he had the inconsideration to commence, Peyrilhe advised her to make him drink a little more wine than usual immediately before going to bed. The treatment proved effectual. Capuron, p. 262. A parallel case is mentioned by Pinel, of a mathematician, whose connubial duties were disturbed and made of no effect by his constant habit on those occasions of employing his mind in the solution of mathematical problems. The same innocent stratagem is represented to have proved successful also in that case."

Dr. Davis would seem to complain of the inordinate virility of some husbands, and he recommends at least one ample bleeding to moderate their vigour. Whether the possessor of great

venereal power will think it worth while to submit to the discipline, it is not for us to decide.

Dr. Davis concludes the subject of sterility by an enumeration of real or reputed antiphrodisiacs. Leaving them to those who are possessed of sufficient amplitude of faith, we will simply observe, that the means that improve and maintain the health are probably best adapted to strengthening the generative as well as the other functions of the body.

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### X. CASE OF THE DISCHARGE OF A DEAD FŒTUS FROM A FISTULOUS OPENING NEAR THE UMBILICUS.

A woman was received into the Cork-st. Fever Hospital in 1828, with considerable enlargement of the abdomen. Her history, as far as it could be learned, was, that eight years before she had been in labour, which, after continuing for two days, suddenly ceased, and the child, as she expressed herself, rose up into her stomach: no delivery followed. After remaining in bad health for about two years, she again experienced the symptoms of pregnancy, and gave birth to a child, which did not survive; but the former child still remained in the cavity of the belly, and during its continuance there she bore three children, the last of whom lived. Ultimately a fistulous opening formed near the umbilicus, which was enlarged, and the original child removed; it was in a state of wonderful preservation, measured twenty-two inches in length, and had attached to it about two feet of the umbilical cord.

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### XI. OF THE FŒTUS BREATHING AND CRYING IN UTERO.

I was called up one night by an intelligent pupil in the hospital, who informed me, that a very strange sound was observed to come from a patient in labour, resembling exactly the whine of a child.

On going into the labour ward, I found the nurses and pupils surrounding a patient's couch with out-stretched necks, listening with greatest intensity and amazement; and on approaching within about six feet of the bed, I distinctly heard a low moaning whine, resembling the faint and painful cry of a delicate seven months child; this became more distinct the nearer I approached the patient, and there could be no doubt whatever, that it came from the abdomen of the woman on the couch, however produced. Still sceptical, I applied the stethoscope, when the fact was proved beyond a doubt, as not only the cry mentioned, but the laboured respiration of the fœtus was perfectly audible. A vaginal examination was instituted, and the head was found presenting, but high in the pelvis. The parts were only partially dilated, although the membranes were ruptured, and the waters had drained off shortly before. This woman was not delivered for four hours, and the above phenomena were observed by several of the pupils, up to the time of the child's birth. This patient's name was Morell, the date of her delivery the 2nd of December, 1830.

This case not only establishes a curious, we had almost said incredible fact, but in a medico-legal point of view, is of some importance, and shews in a striking manner the futility of some of the tests most depended on in child murder.—*Dr. Kennedy on Obstetric Auscultation.*

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### XII. DIFFERENCES BETWEEN THE PHYSIOLOGY OF THE FŒTAL, AND THAT OF THE PERFECT HEART.

The highly-interesting experiments and observations of M. Merat (Dict. des Sciences Médicales, vol. v. p. 452) will, we conceive, account for this fact. They prove the comparatively more perfect inherent vitality of the heart, the more nearly the animal approaches the state of fœtal existence, and also its decreased dependance on the nervous system. From a number of experiments made by this gentleman on rabbits, the facts he arrived at were, that on the excision of the heart from the body in

two animals, one 1 day old, and one 30 days old, the sensibility of the heart in the former continued for fourteen minutes, while that of the latter was only observed for one minute after its excision. He also found, that the gaping (*baillements*) of the heart in the first continued evident for twenty minutes, whilst in the last it continued only for one minute and a third. In addition to this, he observed, that the destruction of the lumbar portion of the spinal marrow, in the first days after birth, did not suffice to arrest the circulation, but that when twenty days or so had elapsed, this almost always arrested it.

The conclusions which we would draw from these interesting facts, are, that the heart's action in the fœtus, and of course the circulation, on the well being of which fœtal existence more immediately depends, are much less under the influence or more independent of the brain and nervous system than are those in the adult or child. And this would appear to be another of those wise and beneficent provisions in our original conformation, with so many of which the animal structure abounds, as we know how much more precarious would be the life of the young, were a weak system, such as its is, subject to the effect which an acute and susceptible nervous organization would impart. How much more frequently would nature, by so gifting it, have frustrated her intentions expressed in the divine law, 'increase and multiply,' were the circulation in them to be easily checked by the functions of the brain and nervous system being impaired? And even, with this provision, do we not too often observe infants destroyed by the pressure on the head during the process of parturition?—*Ibid.*

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XIII. UMBILICAL HERNIA OF THE GRAVID UTERUS.

I met once with a very remarkable case of the latter description in a woman who had had a number of children; when in labour of her second child, hernia took place at the umbilicus, which gradually increased in extent with each child she carried, until at length the impregnated uterus made its way completely out of the abdomen, and became suspended over the pubis. I saw her at the expiration of the ninth month when carrying her twelfth child, when the pendulous tumour corresponded with that represented in *Plate IV. Fig.* 2.—*Ibid.*

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XIV. USE OF AUSCULTATION IN THE CASE OF STILL-BORN CHILDREN.

The author was some time since informed by the highly-talented Dr. M'Intosh, of Edinburgh, that he also had been for some time in the habit of using the stethoscope, to detect the heart's action, in cases of still-born children, and with the happiest results; having by its assistance discovered the heart pulsating in cases, in which, after relying on the usual means, he had judged further endeavours to establish vitality as useless.—*Ibid.*

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XV. CURIOUS CASE OF APOPLECTIFORM DISEASE; Communicated by Dr. FLETCHER, of Chesterfield.

A lady, aged about 55, who had for some time laboured under a disease of the heart, supposed to be hypertrophy of the left ventricle, was seized very suddenly on the 15th August, 1831, with an attack of apoplexy. She was totally insensible and speechless, with strong convulsions; the mouth was drawn to one side, and the breathing was stertorous. As soon as relief could be procured, she was bled very freely by a respectable surgeon in this town, and I saw her about half an hour afterwards. When a considerable quantity of blood had been taken the convulsions began to abate, and other alarming symptoms to be somewhat mitigated. Cold applications were used to the head, and stimulating injections were administered, but there was a total inability of swallowing, and therefore medicines by the mouth could not be given. In a few hours the power

of speech and capability of swallowing gradually returned, and in a few days she was comparitively well. In the November following she had another similar attack, but she was then a considerable distance from home, and I did not see her. I understand that the treatment was very similar to what had been previously adopted, excepting that she was not bled with the lancet, but cupped on the temples. She recovered from this attack, and was again seized in a similarly violent manner in May, and in September, 1832, and again in Sept. of the present year. All these attacks were very similar to each other and very alarming, and nearly the same treatment was adopted in them all; but in the intervals she has had several which were less serious, though still attended with much derangement of her general health. It may be observed generally that during the violence of the attacks the pulse is oppressed, the heart beats sluggishly, and the pulsations can scarcely be felt, but after some blood has been drawn, the action of the heart gradually returns, and in some time becomes extremely violent, from the returning circulation, with prodigious thumping and beating, just as water when it has been pent up for some time, rushes through the opposing barrier with increased impetuosity. The violent attacks have commonly continued for three or four hours, and then sensibility, recollection, and the power of speech, &c. have gradually returned. Thus it appears that in a little more than two years this lady has had five very serious attacks of fits which have all the appearance and character of apoplexy, independent of several threatenings or indications which apparently were averted by the means which were adopted. These were bleeding at the arm, cupping, leeches, blisters, &c. The blue pill was also given for a length of time in small doses, as a grain once or twice a day, but the bowels would not bear any stronger dose. The most effectual remedy, and indeed the only one on which we could place any reliance, was bleeding with the lancet. In the last attack, when the blood did not flow freely from the arm, a cupping glass was applied over the region of the heart, and in a very short time the stream from the arm became more free. This effect was observed two or three times, and I suppose may be accounted for on the supposition, that the external stimulus gives some relief to the oppressed heart, and thereby removes part of the impediment to a free circulation.

I believe that every remedy which has been suggested by way of precaution or prevention has been submitted to by the patient, excepting a seton on the left side, and to that she constantly makes a decided objection. In the intervals her health is tolerably good, and she is benefited by taking exercise in a small carriage, but she cannot walk far at a time, and going up any ascending ground is apt to produce an unpleasant palpitation of the heart attended with dyspnœa.

*Remarks.* While we fear that there is organic disease of the heart in the foregoing case, we suspect that the phenomena, in the attacks, appertain more to epilepsy or hysteria than to genuine apoplexy. The oppressed state of the circulation during the paroxysms, is unfavourable to the idea of apoplexy —and the absence of all subsequent paralytic symptoms tends to strengthen the opinion of its being hystero-epileptic. We would suggest that a grain of nitrate of silver be given every night for a fortnight—then a grain twice a day, for three weeks—and three grains a day for a fortnight. This plan will not endanger the skin, and may work some change in this mysterious affection.

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## XVI. CASE OF WOUND OF THE GLUTEAL ARTERY. By R. CARMICHAEL, Esq.*

Many, if not most of us, remember the poetical description of the case of the leech-catcher, contained in the works

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* Dublin Journ. Nov. 1833.

of the late John Bell. That case was one of a terrible character, an incision of two feet in length—eight pounds of coagulated blood removed from the sac —and a deluge of fresh blood, followed by a loud whizzing noise, and apparent extinction of the patient's life, constituting its faithful and its horrid features. The anatomist, relying on the seeming exactness of his science, has ventured to doubt and to dispute the sober reality of John Bell's statements, and a strong imagination has been thought to have lent its vivid colouring to the dull and diminutive objects of nature. The sceptic may feed his favourite passion with the modest and unobtrusive circumstances of the following case.

A young gentleman, aged 17, received accidentally in the right hip a wound from a pen-knife, which penetrated as far as the handle would permit. This was instantly followed by a gush of blood so strong as to dash against the contiguous wall of the chamber. The hæmorrhage was immediately arrested by a medical man.

Three days afterwards the patient imprudently rose from his bed and walked down stairs. He had scarcely returned to his room when he felt an acute pain in the hip immediately succeeded by tumefaction. This daily increased, and on the 19th of September of the present year, eleven days after the occurrence of the accident, Mr. Carmichael was requested to visit him.

"On examination I found the entire right hip considerably swollen and firm to the feel, the skin was slightly discolored, having somewhat the appearance that a bruise would present. The trochanter could scarcely be felt, so great was the tumefaction. On measuring the two hips, by passing a tape between the thighs to the anterior superior spinous process of the ileum of each, the affected hip measured two inches more than the sound one; the upper part of the thigh was also so much swollen, that its circumference measured more by an inch and a half than the other; the integuments were also discoloured more or less even to the ham. The small cicatrix of the wound was situated about half an inch above the presumed situation of the upper margin of the ischiatic notch, where the gluteal artery emerges from the pelvis. No pulsation was evident to the eye, even on the most minute examination, but the strong pulsation of an aneurismal tumor was manifested to the ear by either immediate or mediate auscultation."

Mr. Carmichael very reasonably supposed from the preceding circumstances that the case was one of diffused aneurism from wound. He resolved to offer the patient the chance that general means could afford. He directed the abstraction of ten ounces of blood from the arm, draughts containing tincture of digitalis were given every sixth hour, a cold lotion was applied to the tumefied parts, and absolute rest in the recumbent position enjoined. This plan, with occasional opiates to meet pain and uneasiness, was persevered in during five days, but no benefit was derived; on the contrary, the tumefaction of the hip and entire limb was obviously increasing, and the state of the patient was so distressing, that even he himself became anxious for the operation, which was performed on the 24th of September, in the presence of Messrs. Colles, Adams, M'Dowell, Hutton, Logan, and Doctor Brown. It would be difficult and unjust to abbreviate the already brief notes of this successful operation.

"The patient being placed upon a table, lying on his face, I commenced the operation by an incision five inches in length, commencing an inch below the superior posterior spinous process of the ileum, and about the same distance from the margin of the sacrum, and continued it in a line obliquely extending downwards to the trochanter major. The gluteus maximus and medius were then rapidly divided, or rather their fibres separated (as the incision ran in the direction of the fibres) to the same extent as that of the integuments. The coagulated blood forming the tumour then became apparent through the sac, or condensed cellular membrane with which it was covered. This was divided the whole extent of the incision by running a buttoned bistoury quickly along the finger introduced into the sac, and its contents,

consisting of from one to two pounds of coagulated blood, were emptied rapidly out with both hands into a soup-plate, which it completely filled.—A large jet of fresh blood instantly filled the cavity I had emptied, but the precise spot whence it came being perceived, I was enabled by pressure with the finger to prevent any farther effusion, while that which had been just poured out was removed by the spunge. It was obviously the trunk of the gluteal artery just as it debouches from the ischiatic notch, which had been wounded. I endeavoured, but in vain, to secure the artery by means of the tenaculum. I had then recourse to a common needle of large size, and with this instrument was immediately successful in passing a ligature around the bleeding vessel, and of preventing all farther hemorrhage. After having waited some little time, to ascertain if the artery was perfectly secured, lint was introduced to the bottom of the wound, as it was not likely that union by the first intention would take place between the walls of the extensive cavity which contained the coagulated blood. The patient was then put to bed, and an anodyne given to him."

On the third day the external dressings were removed. On the fourth, the greater part of the lint contained in the cavity came away, followed by a flow of matter of good quality. On the sixth, the remainder of the lint and the ligature were discharged. The report is closed on the sixteenth day, when the patient is said to be completely convalescent, and the wound rapidly healing.

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## XVII. Dr. Hart on the Fungating Venereal Ulcer.*

We have lately directed the attention of our readers to the complicated questions connected with syphilis and gonorrhœa. We promised, or we threatened, for our readers may be tempted, by the various character of their occupations or their tastes, to consider what we uttered as a promise or a threat, to revert to the subject on appropriate occasions.* Such an opportunity is presented to us now.

Dr. Hart, whose experience, he assures us, is considerable, has made some remarks on what he has denominated the fungating ulcer, which we cannot permit to pass without challenge. That experience becomes an additional reason for disseminating his opinions, if we think they are correct—for disputing them, if inclined to suspect that they are wrong. He commences by the remark, that this form of ulceration is distinguishable, which we grant, and should be distinguished, which we allow, from the genuine Hunterian chancre. But where is the Hunterian chancre to be found? Seldom or never in the Lock Hospital of London. We cannot avoid entertaining the suspicion, that the striking reference to the Hunterian chancre betrays a disposition to the theory which considers this the genuine syphilis. The subsequent portion of Dr. Hart's brief observations may tend to confirm this natural idea. In order that our readers may fully understand the nature of the sores to which Dr. Hart refers, we transcribe his description without abbreviation.

"This form of disease commences in one or more vesicles, seated on the outer or inner surface of the prepuce, on the cervix, more rarely on the glans or corona glandis. In females, it mostly occurs in the recess between the labia and nymphæ, on the inner surface of

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* Dublin Journ. No. XI.

* This is no idle flourish of words. We were gravely told by an able and an eminent *physician*, that our long review of the work of Mr. Wallace would infallibly lead to the destruction of this Journal. But our melancholy anticipations were in some degree corrected, by the reception of a letter from a distinguished *surgeon*, thanking us warmly for the labour we had expended, and the sentiments we had expressed. Probably the analysis of a work on cholera would have called forth precisely opposite opinions.

the latter, at the posterior commissure, and sometimes at the verge of the anus. Each vesicle, after a few days, is succeeded by an ulcer, which presents the following characters, a well-defined sharp edge, with an elevated border, when on the prepuce, the surface of the ulcer is generally concave, and covered with a yellow, or greenish-yellow coating of tenacious pus: often there is a profuse discharge of pus, more especially if the ulcer be on the inner surface of the prepuce, or at the cervix; the pus, in this case, is mostly cream-coloured, and of uniform consistence. This form of ulcer is not so frequently solitary as the Hunterian chancre, but generally occurs in a crop consisting of two or more.

There is generally a good deal of pain accompanying this affection. The inguinal glands sometimes become tender and enlarged, but scarcely ever suppurate.

When this ulcer is neglected or improperly treated, an exuberant granulation sprouts from its surface, which is hard and firm when its seat is the glans, and softer when it occurs on the prepuce. I have seen this excrescence generally larger, softer, and of a paler colour, on the genitals of females than on those of males.

When the fungus is allowed to continue for any length of time, it acquires a greater degree of hardness, and is more difficult of removal; it often expands, so as that its edge overlaps the skin around the margin of the ulcer."

We recognize the sore, and admit the general truth of the description. But the eye of the experienced observer of syphilis detects, without difficulty, many omissions. In the angle of the prepuce and the glans, this sore sometimes commences as an extensive vesication, rather than as solitary vesicles. It often produces phymosis. At the orifice of a prepuce naturally narrow, it often occasions a peculiarly radiated appearance, but the gentle attempt to retract the skin discovers the small and circular yellow ulcerations. The sore on the prepuce constantly inoculates the glans. On the inferior surface of the penis, the sores from the lodgement of discharge become confluent, and the opposite scrotum is infected, whilst the scrotum, in its turn, becomes the means of inoculating the contiguous thigh, and more especially its junction with the perinæum.

Successive crops of these sores appear, until the patient is completely cured. This is a frequent and obvious occurrence.

On the labia of the woman they are sometimes seen descending like a string of beads, from the upper to the under commissure. This condition is evidently the result of the natural approximation of the parts, and the contagious property of the discharge.

We might notice other omissions of our author, but we pass to a very important consideration—the liability, or otherwise, to secondary symptoms.

"I have not known a single instance where this ulcer was followed by secondary symptoms, and I therefore consider it to be a purely local affection. I have had frequent opportunities of ascertaining that it was contagious. Men under my treatment for this affection frequently communicated it to their wives, in whom it invariably exhibited exactly the same appearances as those above described."

The proverbial difference of doctors is amply displayed in the present instance. Dr. Hart declares that he has never witnessed secondary symptoms, and the word of a gentleman is always sacred. But we own that we *have* witnessed secondary symptoms, and that so often and so clearly, that we now invariably treat the case with the view to this liability. It is singular that at one time we entertained the same opinion as our author, and only gave it up on witnessing a marked case of secondary eruption. The patient was in the Lock Hospital of London—the sores were in the angle, and precisely such as Dr. Hart has described. They were healed by the red wash, and applications of the nitrate of silver, combined with active purgation. The patient was dismissed apparently cured, but returned in a short time with the true syphilitic psoriasis and lepra. Since the occurrence of that case, we have seen too many of a similar character. A patient was lately discharged from the

institution, who underwent a course of inunction for the actual combination of these sores, with the small pustular eruption. We will not multiply examples. Were we called on we could furnish the details. We need not inform Dr. Hart that one genuine case of secondary symptoms from such a sore, must induce the cautious and experienced surgeon to adopt the means of prevention in all cases.

These remarks will form an apt introduction to the consideration of the treatment.

"Mercury, given internally, is not only unnecessary but totally useless in this disease, which I have often seen it continue, not altered in the least, although the patient had been fully salivated. It is to be treated altogether by the application of escharotics. I have found nitrate of silver, applied in substance, the most effectual means of removing the excrescence, if soft, or preventing its formation, if applied to the ulcer which precedes it. I have also used the sulphate of copper in substance, with advantage in such cases. It is sometimes, however, necessary, especially when the fungus acquires a considerable degree of hardness, and overlaps the surrounding skin, to excise the growth with a knife or pair of sharp scissors: but if the excision be not followed up by the application of the solid nitrate of silver or sulphate of copper to the surface exposed by the removal of the fungus, the latter will be reproduced in three or four days.

I have found some persons so timid as to refuse submitting to excision, or even to the application of caustic. In such cases I have recommended strong solutions of the above-mentioned escharotic substances, and the frequent use of a powder composed of savine and sal ammoniac, in equal parts, or the acetic acid as recommended by Mr. Carmichael. This treatment has in a few instances been successful, after having been persevered in for a sufficient length of time; but it has more frequently failed, and the mode of treatment originally objected to has been at last submitted to, and with its usual good effects in removing the disease."

Philosophers have been confounded, and the man of the world has scoffed, at the glaring contradictions of medical evidence. We shall not attempt the unprofitable task of endeavouring to reconcile conflicting statements. We must confess that we totally differ from our author, and we boldly affirm that we have neither found mercury unnecessary nor useless. Were the question pointedly preferred, we would feel compelled to reply that we have found it absolutely necessary and useful.

We could not so flatly oppose an observer whose accuracy of description we have candidly admitted without a particular reference to facts. Four months ago a gentleman applied to us with a marked and severe specimen of the sore or sores. We purged him actively for two or three days, subdued and removed the inflammatory action that usually accompanies these doses in the first instance, and then prescribed the blue-pill. The ulcers immediately began to heal, and then, but not before, we touched them lighty with the lunar caustic. The sores were cicatrized in about a fortnight, but the mercury was continued, with the aid of sarsaparilla, for the space of three weeks or a month. All induration was removed, and the gentleman has since been free from complaint. In the hospital books are the notes of numerous cases of this nature, treated successfully by mercury. Many display the staggering fact, that the ulcers could not be cured without it.

We freely acknowledge the excellent effects of the nitrate of silver. It is always useful, sometimes it may be regarded as almost indispensable. The best time for its employment is just when granulation has appeared. The best *local* treatment at first is emollient applications, or perhaps the black-wash —when the yellow and *spongy* surface is appearing the camphorated red-wash of Bates—and soon afterwards the use of the nitrate of silver. Excision we never saw required and we certainly condemn. Mercury supersedes the necessity for steel.

The best *general* treatment is, purging with calomel at night and senna in the morning, till all pyrexia and every inflammatory appearance is removed—

then blue-pill, say three grains, twice daily, with an occasional dose of infusion of roses and salts—and finally after ten days or a fortnight, the combination of the blue-pill with the sarsaparilla. This treatment is simple, decisive, and successful. We speak from facts. Did we not we should be equally arrogant and unjustifiable.

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## XVIII. CASE OF BONY UNION OF A FRACTURE OF THE NECK OF THE FEMUR, WITHIN THE CAPSULE. By E. STANLEY, Esq.*

A young man in his eighteenth year fell from the top of a loaded cart upon his right hip, the injury of which was attended by the following symptoms. He was wholly unable to move the limb, and suffered severe pain when it was moved by another person. The thigh was bent to a right angle with the pelvis, and could not by any means be extended. Abduction of the thigh was difficult. The limb was everted, at first slightly, afterwards in a greater degree. The soft parts around the hip joint were considerably swollen. There was no shortening of the limb, but rather the appearance of a lengthening of it in the erect posture, probably from the obliquity in the position of the pelvis. No crepitus could be felt in any movement of the limb.

The general opinion of the surgeons to whose judgment the case was submitted, pronounced it to be one of probable dislocation into the foramen ovale. Forcible extension was made by the pulleys, and the thigh was then moved in several directions to replace the head of the bone in its socket. The success which resulted from these manipulations is not specified by Mr. Stanley.

Two months after the accident the patient was admitted into St. Bartholomew's Hospital with symptoms of general ill-health. One month after his admission he was seized with an eruption, pronounced to be small-pox, and in two days afterwards he died.

In the examination of the body, no other morbid appearances were discovered besides those of the injured hip-joint. The capsule of the joint was entire, but a little thickened. The ligamentum teres was uninjured. A line of fracture extended obliquely through the neck of the femur, and entirely within the capsule. The neck of the bone was shortened, and its head, in consequence, approximated to the trochanter major. The fractured surfaces were in the closest apposition, and finally united nearly in their whole extent by bone. There was an irregular deposition of bone upon the neck of the femur, beneath its synovial and periosteal covering along the line of the fracture.

Mr. Stanley fairly observes upon the case:—

"It will be remarked that in the instance now recorded, notwithstanding the free and repeated examinations of the limb, and the forcible extension of it by the pulleys, in short, with every circumstance except the age of the patient, unfavourable for a bony union of the fracture, this had been nearly completed. If this case had occurred at an advanced period of life, we may be certain that there would have been but a very imperfect union of the fracture, and it shews satisfactorily, that in the ordinary cases of fracture of the neck of the femur within the capsule, the age of the patient and consequent deficiency of vascular action, especially in the separated head of the bone, is the most influential of the causes to which the failure of a bony union has been in general ascribed."

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## XIX. DR. PATTERSON ON THE EFFECTS OF MAMMARY IRRITATION IN AMENORRHŒA.*

The sympathy between the uterus and

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* Med. Chir. Trans. Vol. 18, Part I.

* Dublin Journal, No. XI.

mamma is familiar to practitioners, but their attention has been usually directed to the alterations produced in the condition of the latter, by the changes that occur in the state and in the functions of the former. The following facts would appear to prove that the influence of the one upon the other is reciprocal, and that the physician in acting upon the mamma can exert some degree of power on the uterus.

*Case* 1. Mary Reardon, æt. 24 years, of moderately corpulent habit, was admitted into the Rathkeale Hospital on the 10th of August, 1832. She laboured under slight synochial fever, which in a few days yielded to venesection and purgatives. On the 19th Aug. symptoms which were considered of a hysterical character presented themselves, with pain in the upper and outer part of the right side of the chest. For the latter affection a small sinapism was prescribed, but from inattention of the nurse, it was made so large that it covered a considerable portion of the mamma. The sinapism remained on for half an hour.

At the visit on the following morning the 20th August, Reardon complained that the right breast was exceedingly painful, the pain being very different in its character from that which she had before experienced. On examination, the whole side of the chest was found considerably swollen; there was slight diffused redness of the skin; and though the mamma itself was enlarged to four or five times its natural bulk, yet there was no circumscribed hardness, nor any tendency to suppurative inflammation.

On the 21st August, the right mamma and adjoining parts of the chest were found much more enlarged than they had been at the preceding visit. The left mamma and side of the thorax were unaffected, and it was announced by the nurse, that the catamenia had that morning appeared, and were then present in considerable quantity.

This discharge, which, as the patient stated, had been for two years and a half wholly suppressed, continued to flow for two days; then it began to decline, and with it the tumefaction of the mamma gradually disappeared.

The attention of Dr. Patterson was arrested by the agency apparently exerted by the sinapism placed upon the mamma, over the catamenial secretion. He tried the same means in the next case that was presented.

*Case* 2. Catharine Power, æt. 19, applied to Dr. Patterson, on the 14th Sept. 1832, complaining of headache, languor, loss of appetite, and inability to attend to her usual business, that of a servant. She stated that about the middle of April, the menstrual discharge being then present, she incautiously exposed herself to cold in washing clothes at a river. The catamenia then suddenly ceased, had not since returned, and from that period she had been constantly subject to ill-health. She had consulted different medical gentlemen, and taken a great variety of medicine with little advantage.

Dr. Patterson directed that the clavicular half of the right mamma should be covered with a sinapism. The consequence was that the whole right breast became much swollen, hot, and painful. The next morning the enlargement of the mamma was very much increased, the tumefaction having extended to the clavicle and axilla of the irritated side. There was no hard circumscribed or prominent tumor, but a painful diffuse elastic distention of the mammary gland and surrounding cellular substance. On that evening the catamenia appeared. They continued for two or three days, and in a week the girl was so well that Dr. Patterson discontinued his attendance.

Both patients have since continued to menstruate with regularity.

Dr. Patterson remarks with judgment and with candour, that it must not be supposed that mammary irritation is applicable to every form of amenorrhœa. He does more than admit the possibility of failure, he presents an instance. In order that the evidence may be laid before our readers, and that Dr. Patterson's laudable and uncommon candour may be fraught with as extensive benefit as he could wish, we

shall adduce the unsuccessful as well as the favourable cases.

*Case* 3. Mary Fitzgibbon, æt. about 21 years, of spare habit, was affected with headach, and irregular dyspeptic symptoms. The headache permanent, with occasional aggravation; countenance and tongue chlorotic; mammæ undeveloped. The menses had been scanty and irregular from the 16th to the 19th year of her age, but during the last two years they had been totally suppressed. No apparent organic impediment.

A sinapism was first applied to one breast, and afterwards a similar application was made to both breasts at the same time. But though the sinapisms produced their ordinary effects, considerable pain and cutaneous irritation, yet the enlargement of the mammæ was very trifling, and there was no consequent uterine action.

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## XX. Case of Œsophagotomy. By Mr. Arnott.

Mr. Arnott has been tempted to relate this case, because he can only discover the record of the operation having been three times performed upon the Continent, and so far as he knows it has never been done in this country.

*Case.* On the 22d December, Mr. Arnott was summoned to the Middlesex Hospital to see a boy two years and a quarter old. Six days previously he had "swallowed" a portion of the thick end of a rib of mutton, which had stuck in his throat, and for the removal of which ineffectual attempts had been resorted to. The child had been unable to swallow any thing but fluids; in other respects he seemed to suffer little.

"On introducing the finger to the utmost extent, deep below the entrance of the glottis and on the right side, a piece of bone could just be touched, projecting upwards. I endeavored to unfix it but it was too low. Gullet forceps and Weiss's urethra forceps were tried, but could not be applied so as to sieze it. A hook attached to a piece of whalebone, and another of strong wire were ineffectually endeavoured to be passed beyond it. An emetic was given which was followed by severe straining (vomiting did not take place, probably from there being nothing in the stomach:) but the position of the bone was unaltered. Lastly, I applied gentle pressure with the tip of the finger on its point, but it did not undergo the least displacement."

Mr. Arnott expressed a wish that the child should be brought into the hospital. The Father, however, refused his consent. For a fortnight, no additional suffering was experienced, but emaciation took place. On the 16th of January the child was brought to the hospital again. For the last few days his breathing had become occasionally oppressed, more especially at night. Mr. Arnott could still feel the bone with his finger, but his colleagues could not. Probably the finger of Mr. Arnott is a long one. In consultation, the operation of œsophagotomy was decided on. The steps of the operation were these.

"The child being laid on its back upon a pillow and the head turned a little to the left, an incision was made on the right side of the neck in the sulcus between the sterno-mastoid muscle on the outer, and the larynx and trachea on the inner side. It was commenced opposite to the upper part of the thyroid cartilage, and carried downwards about an inch and three quarters in length. In the subcutaneous cellular substance two vessels which bled were tied. Beneath the fascia, the omo-hyoideus muscle presented itself, running diagonally across the wound; it was readily pulled to the inner side, and the division of the cellular substance continued; the knife being directed inwards upon the edge of the larynx and trachea, (so as to avoid the carotid artery,) until the outer part of the sterno-thyroid muscle was exposed. The further separation of the parts was effected by the handle of the scalpel and the fingers. Two vessels which resisted the traction on

the cellular substance, and ran laterally into the right lobe of the thyroid gland, which now started into view, had a ligature put round them by way of precaution. By means of a blunt hook, the gland was drawn inwards, and the larynx turned a little round on its axis, but the finger applied behind the lower part of this did not distinguish the bone. A male silver catheter was now introduced by the mouth, and its point made to project through the wound, carrying the dilateable gullet upon it. Into this, a small incision was made, and a pair of polypus forceps being inserted, the blades were expanded, and the wound easily dilated in a perpendicular direction, so as to admit the finger. With this, the bone was felt about half an inch lower down than the aperture, and the forceps being re-inserted it was laid hold of, disengaged, and extracted; and proved to be the spinous process of one of the lower dorsal vertebræ of a sheep."

Little blood was lost. The wound was not united by the first intention.

For some hours after the operation, the breathing was somewhat interrupted by mucus collecting in the throat, about the entrance of the glottis; but this being expelled, partly by the mouth, and partly by the wound, he had a good night. He had been fed by means of an elastic gum catheter passed through the mouth; but the following morning some difficulty occurred in carrying it down, and as it was judged imprudent to urge it, lest ulceration of the œsophagus had taken place, and pressure might be injuriously applied, it was introduced through the wound, which was easily accomplished, and was the method adhered to. This day was passed tranquilly; but in the course of the second night, the child's breathing was laborious, and on the morning of the succeeding day, was accompanied by wheezing: he was at the same time severely purged. In the afternoon, the difficulty of breathing increased, the countenance became anxious and slightly livid, and death occurred at 9, p.m. fifty-six hours subsequent to the operation.

*Dissection.* Slight redness at the under part of the pharynx. Two points of superficial ulceration in the upper part, and on opposite sides of the œsophagus. The opening made in the gullet by the operation was one half in the pharynx, and the other in the œsophagus, or rather, the under half was below the lower margin of the cricoid cartilage. There was no appearance of suppuration between the pharynx and œsophagus, and the anterior surface of the cervical vertebræ. The entrance to the glottis and the cavity of the larynx presented their natural appearance, as well as the upper part of the trachea; but the under part of this tube and the bronchi were inflamed. The right lung, with the exception of its upper part, was hepatized, and portions of it thrown into water, sunk. Sections of it presented a mottled gray appearance, and granulated texture, with here and there a drop of yellow matter from the extremity of the bronchial tubes. In a less degree and more partially, hepatization was observed in the left lung.

Mr. Arnott makes some sensible remarks upon the case. Their gist may briefly be said to be this:—First, that the projection of the foreign body externally is not necessary to indicate, nor is its absence calculated to dissuade from the operation (in this case there was no such projection);—secondly, that the operation may be proper, and even necessary, though deglutition is not totally impeded, and though suffocation is not threatened;—thirdly, that a danger hitherto unnoticed may follow the residence of a foreign body in the œsophagus, we allude to inflammation of the lung, and, consequently, that an early operation is advisable in order to avert this risk;—fourthly, that although the situation of the external incision must be regulated by that of the body to be removed, the termination of the pharynx, in the narrower œsophagus, is the part most likely to have occasioned the obstruction, and that certain precautions may be specified in the performance of the operation in this place. Those precautions may be most appropriately mentioned in the words of Mr. Arnott.

"In performing the operation, the

situation of the external incision will, in some measure depend upon that of the body to be removed, but as the pharynx, tapering gradually in its descent, terminates in the œsophagus, immediately under the larynx, it is here that a bulky substance is most apt to be detained. In reaching the œsophagus at this place, taking as a centre a spot corresponding to the level of the lower margin of the cricoid cartilage and the first ring of the trachea, the only parts of consequence whose injury is to be dreaded are the inferior thyroideal artery and recurrent nerve, (the superior thyroideal artery being too high to run any risk;) but these will not be wounded, if the same plan is adopted as that in the case I have related, of separating the deeper-seated parts by the handle of the scalpel and the finger, instead of by the knife.—Here, they were not seen during the operation, in fact, they were not within the sphere of the wound, for on examining the parts after death, the artery and nerve in question were found below, and on the inner side of it. Still I am satisfied by trials on the dead body that the artery is likely to be divided, if the operation is completed by the knife, and hence, the expediency of proceeding deliberately, cutting but little at a time, sponging carefully, so as to see and avoid the artery, if possible, or to tie it immediately when cut. The recurrent nerve runs less risk, as it reaches the side of the trachea to which it is attached in its ascent, lower down. I do not allude to the carotid artery as being exposed to any peril. I think with Mr. Allan Burns, that 'he must be wanton indeed in the use of his knife, who hurts this vessel.'"

Mr. Arnott adverts to some other circumstances—the dilatation of the wound in the œsophagus by the forceps, an excellent suggestion of Sir C. Bell—the nourishment of the patient after the operation by clysters, and the introduction of an elastic gum tube into the stomach, from the mouth or from the wound. In a note, he refers to two cases lately published in the Journal Hebdomadaire, in which the operation was successfully performed. In one this was done on the eleventh, and in one on the eighth day after the accident. The patients were adults. The incisions were made on the left side of the neck.

The profession must feel indebted to Mr. Arnott, for the manner in which he has drawn attention to the subject.

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## XXI. CASES OF DEEP-SEATED NÆVI TREATED BY THE SETON. By MR. MACILWAIN.

This will conclude our present notices of the lately-published volume of the Medico-chirurgical Transactions. An account of the remaining papers will be found in our next number, and perhaps it will be found that they are few and comparatively unimportant. They consist of some remarks on the discharge of fatty matters from the bowels by Mr. Lloyd and Dr. Elliotson—of a paper on irritation of the spinal cord and its nerves, in connexion with disease of the kidneys, by Mr. Stanley—and of cases of malignant tumors, by Mr. Langstaff and by Dr. Sims. These we may safely and satisfactorily postpone.

To return to the cases immediately before us. Mr. Fawdington, two or three years ago, published some cases of nævi treated by setons, which were noticed at the time in a number of this Journal. As the reference is not of any consequence, we need not take the trouble to make it more particular. Prior to the publication of Mr. Fawdington's practice, though not antecedent to its adoption, Mr. Macilwain had used the seton in the following case.

*Case* 1. In August, 1829, Mr. Macilwain was requested, in consultation with Mr. Wilson, of Northampton Square, to visit a child three months old, with a small tumor on the left side of the neck, a little below the angle of the jaw, supposed by that gentleman to be glandular. It had first been

noticed three weeks after birth, and was then of about the dimensions of a pea. When seen by Mr. Macilwain, it was nearly the size of a small walnut, soft, elastic, smooth, compressible. It had many of the characters of a suppurating gland, but differing from it in some respects, Mr. Macilwain suspected its nature, and suspecting, made a more particular examination.

"I remarked that the softness was not exactly that conveyed by suppuration; it wanted something which I scarcely know how to describe, shall I say the central fluidity of suppuration? The tumour seemed universally soft and elastic, it was also so compressible that it appeared as if pressure, for the moment, reduced its volume; on looking very closely at its surface, just at the most projecting point, exceedingly minute vascular ramifications were discoverable. It was neither painful nor tender."

Not exactly knowing what the tumour was, he directed the application of a linseed poultice, an emollient substance, in which the doubts of surgeons and physicians may be not unfrequently observed to be immersed. After a fortnight the tumour was unchanged, and the cataplasm resolving neither it nor the uncertainty, a piece of soap-plaster was substituted for it.

"About a week, however, subsequent to this period, Mr. Wilson thought that he had discovered a pulsation in the swelling, and I was requested to see the patient again. I found that the tumour had increased in size, that the pulsation, though faint, was unequivocal, that the vascular ramifications before noticed had become more perceptible, and that when the child cried, an impulse was distinctly conveyed to the tumour. These circumstances confirmed my growing suspicion that it was a deep-seated nævus, or vascular tumour. I accordingly directed the application of cold, by means of the common freezing mixture, and subsequently by ice. Under the latter application there was at first a very sensible diminution in the bulk of the tumour, but afterwards the ice appeared to provoke a reaction followed by an augmentation of its volume."

Mr. Macilwaine now met Mr. Stanley and Mr. Wilson in consultation. They agreed to endeavour to excite inflammation in the tumour by passing red-hot needles through its substance. The hot treatment succeeded no better than the cold, and a seton was resorted to by way of an experiment. The extent of the tumour was this. It reached above as high as the lobulus of the ear, which indeed, with the contiguous portion of the auricle, it had considerably elevated from its usual situation; it extended below to within a half an inch of the clavicle, forwards it occupied the cheek as far as the anterior edge of the masseter muscle, and posteriorly it reached to within about half an inch of the mastoid process. A considerable plexus of vessels had become developed on its surface, and towards the ear a deepish redness was remarked, showing the extreme vascularity of the tumour.

On the 5th December, 1829, Mr. M. passed a long circular needle, armed with two double threads of the silk commonly used for setons, through the substance of the tumour, from one side of its circumference at its base to the opposite; having adjusted the silk, so that it should, as nearly as he could contrive it, fully occupy the space described by the transit of the needle. The structure seemed to yield before the instrument, but still to resist its puncture, so that he had the greatest possible difficulty in carrying its point through the mass, the needle bending so as to endanger its breaking, and yet by the sensation it imparted, it appeared to be pressing against a soft elastic matter. One jet of arterial blood followed the seton, just as when the simple punctures were employed. The constitutional disturbance excited by the seton did not subside for several days. The tumour increased with considerable rapidity.

On the 30th Mr. M. passed a second seton, with similar difficulty and similar immediate effects. The tumour was now of its greatest size. Its diameter

downwards from above the lobulus of the ear was rather more than eight inches, from its anterior edge towards the mastoid process rather less; its circumference at the base was about seventeen inches. This, it must be owned, was a formidable tumour.

Suppuration soon became established in the line of both setons, and whenever a suppression of discharge took place, the child became restless and uneasy. The tumour gradually diminished in bulk till May, 1832, when the setons were both thrown off in one night. There remained nothing more than a slight discolouration of the skin, and the cicatrices of the setons.

Sir Astley Cooper and other gentlemen saw the case during its progress, and entertained no doubt of the nature of the malady.

*Case* 2. In the Winter of 1830–1, Mr. Jacob requested our author's opinion of a tumour in the neck of a child, of the same age as the former patient.

It had been first perceived about a month after birth, and was then of the size of a horsebean; it was seated on the cheek immediately in front of the ear. When seen by Mr. Macilwain, in company with Mr. Jacob, the tumour had acquired the size of a duck's egg, and a number of small veins were seen upon the surface, giving it a blueish aspect. The tumour was so similar to that which was described in the preceding case, that our author describes only the circumstances of difference. Its circumference was larger than in the first-mentioned case, its projection not quite so considerable, its situation in every respect alike, except that its anterior boundary came farther forward on the cheek; it had a somewhat more slippery feel, and though very compressible, did not yield quite so easily.

Mr. M. recommended the seton, and shortly afterwards Mr. Jacob introduced two. Mr. Jacob leaving town, the case was consigned to Mr. Macilwain, and the latter gentleman being also compelled to retire for a period to the country, the patient fell under the care of Mr. Lawrence at St. Bartholomew's Hospital. A dresser of that establishment removed the setons in about four months after their insertion. In rather less than a twelvemonth the mother again brought her child to Mr. Macilwain. The tumour had then only half the volume it exhibited when last he saw it. The mother declared that the diminution had not occurred *after* the withdrawal of the seton.

Mr. M. again introduced it. The jet of blood, and the great resistance to the needle, were precisely similar to those occurrences in the first mentioned case. The excitement occasioned by this seton was much less considerable, and suppuration occurred after a shorter period. The diminution of the tumour has been so rapid, and the promise of its speedy dispersion is so flattering, that he has not thought it necessary to pass a second seton.

"On the present occasion I will only add, that the needle employed was about the size of that which is commonly used for working in worsted. In future I shall employ one a size or two larger, since there will be no danger of its breaking, whilst I have little doubt that, so far, the size of the instrument may be increased without danger of hæmorrhage."*

With the caution of experience Mr. Macilwain recommends discrimination and prudence in the employment of the seton, and anticipates that further modifications may be necessary. He concludes with a quotation not inappropriate to remedial means in every sense of their operation; for, happily, if they do not always effect the good that they may promise, neither do they always occasion the evil which they threaten.

Nec semper feriet, quodcunque minabitur arcus.

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* "I would advise the surgeon not to neglect the plan of adjusting the quantity of the silk so that it should fully occupy the track made by the needle. In the present state of our knowledge on this subject, it would be at least imprudent to throw aside this precaution."

## XXII. CASE OF LARGE OVARIAN TUMOR.

The following case of ovarian disease occurred in the practice of Mr. Marshall, an intelligent surgeon of Forfar, by whom it has been transmitted. We insert the particulars with pleasure.

"Margaret Emily, æt. 38, married, and the mother of several children, in 1828, supposing herself pregnant, was attacked with menorrhagia, in consequence of which a medical man saw her, who ascertained that she was not pregnant, but labouring under disease of the left ovarium. A tumor was distinctly felt in the left iliac region, movable from side to side by change of position. During three years she continued to suffer more or less from pain in the left side, with constitutional irritation, menorrhagia, hysterical affections, strangury, irregular bowels, anasarca with ascites, and latterly oppressed breathing. She menstruated regularly. The tumor progressively enlarged till, in 1831, the abdomen was so much distended as to render her condition very uncomfortable, and, in compliance with her urgent request, paracentesis was performed.

About eighteen pounds of fluid were removed, when the tumor was felt moving downwards and seen obstructing the opening. The trocar being again introduced, about six pounds of purulent matter were evacuated; the tumor descending farther the discharge stopped. The instrument was a third time introduced, but nothing following its removal, the patient was put to bed complaining of pain at the wound, which continued till her death, within 48 hours after the operation.

*Inspection.* A tumor was found occupying almost the whole abdominal cavity, resting upon the brim of the pelvis, and reaching to nearly the ensiform cartilage, which was distorted to one side evidently by pressure. The peritoneum, apparently inflamed in different parts, adhered intimately to the anterior and left lateral surfaces of the tumor, which consisted of a dark grey substance mixed with purulent matter, resembling very much a mass of tuberculated lung in progress of softening, easily broken down by handling, and unable to sustain its own weight. It was connected by an attachment about three inches in breadth, with the left broad ligament occupying the situation of the left ovarium, which had disappeared. At the lower and posterior part of the tumor a large cyst, containing a few ounces of pus, existed; this was the source of the purulent matter evacuated during the operation. The weight of this mass of disease, we calculated to be upwards of 40 pounds. No appearance of disease was observed in the uterus or right ovarium.

*Nov. 29th*, 1833.

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## XXIII. ASCITES APPARENTLY CURED, AFTER PARACENTESIS ABDOMINIS HAD BEEN PERFORMED TWELVE TIMES.

The following fact communicated by our friend Dr. Dickson, of Plymouth Hospital, is not undeserving of attention. The result can hardly be considered as determined; but so far as it has gone, it is highly satisfactory.

"Having lately had a case of ascites under my care, which has terminated in apparent recovery after the operation of paracentesis abdominis had been performed *twelve times*, it is presumed that the following brief notice of it will not be deemed undeserving of record.

When it is considered, out of the number of dropsical patients received into this hospital, how rarely the effusion is primary, and that it is usually consequent upon disease, generally far advanced, of one, and often more important organs, as the liver, spleen, kidneys, lungs, heart, &c. it necessarily follows that the operation of tapping seldom can be resorted to, with any expectation beyond that of its affording temporary relief. In the case of Lieutenant G——, R. N. aged 38, admitted with ascites on the 17th December last, there was little ground to authorize a more favourable conclusion; for there were evident enlargement and induration, both of the liver and spleen, the renal secretion was almost suspended,

and the emaciation and debility were so considerable, that the measure in question was not adopted without my entertaining serious apprehensions of the result.

The operation, however, was borne better than was expected, and paracentesis abdominis was had recourse to twelve times, with increasing advantage, between the 29th of January and the 18th of July. The quantity of fluid abstracted, on each occasion except the last, by my friend Dr. Armstrong, being upon an average about twelve pints.

The medical treatment consisted chiefly of the frequent exhibition of hydragogue cathartics and the various diuretics, including the pyrola amulata, which, on many occasions, I have found to be very useful, but on others as inefficient—the internal and external use of mercury and of iodine, the diosma crenata, preparations of iron, and various other tonics, &c. But, as it would be impossible to give any analysis of a case which was under my care upwards of nine months, without entering into a long detail, suffice it to say, that his improvement laterly was so great, that when he was discharged for the benefit of change of air, on the 21st of September, he had scarcely required any medicine for several weeks; the kidneys were acting freely—the abdomen was reduced nearly to its natural size—the appetite was keen, and he was rapidly advancing in convalescence.

Dr. Good adduces a similar example from the *Common. Lit. Vrord*, 1735, of a person "cured after twelve operations;" and, in the present instance, it is not unreasonable to anticipate an equally favourable result, if my late patient acts with prudence; for, after the lapse of more than two months, I yesterday learned that he continued to improve in health and strength, and, in fine, considered himself quite recovered.

D. T. H. DICKSON."

The concluding remarks of our excellent friend are valuable, but almost illegible. The printer's art can scarcely decipher and unfold the hieroglyphic characters.

"I have also met with two cases of empyema, which singularly enough occurred about the same time last year, (for Sir A. Cooper, who was here at the time, said he had met with but one such in his practice,) which were relieved by what might be termed a natural paracentesis thoracis; the one terminated fatally, the other, after being reduced to the last degree of emaciation by hectic fever, and the long-continued discharge, finally left the hospital quite convalescent, and even plump, after a sojourn of ten months.

I may also mention an extraordinary case of pericarditis seen by Sir William Burnett, in which the enormous quantity of five pints of purulent matter was found in the pericardium. The heart, though thickly coated with coagulable lymph, weighed only ten ounces. In another case of hypertrophia of the heart, this organ when emptied of its blood, with the accreted pericardium, weighed three pounds nine ounces. A writer in the Edinburgh Journal, (No. XIX. p. 70,) mentions an enlarged heart, which weighed three pounds two ounces, and which he considered 'as large, if not larger than any as yet on record.' But he specifies it to have been 'Dutch weight,' which, if 24 ounces to the pound, if my recollection be correct, is of course a pound larger than the above—though notwithstanding you may think it worthy of notice. I have no time to go further to-night; but forgot to say, that in another case of ascites which terminated fatally, paracentesis was repeated ten times. Independently of the cases to which I have alluded, I believe the operation, generally speaking, is more successful in females than in males."

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## XXIV. OFFICIAL REPORT OF CHOLERA IN PHILADELPHIA, 1832.

THE following extract from the Cholera Gazette of Philadelphia, is by no means out of place, even at this time.

"The regular westward progress of the great epidemic, known under the designation of the cholera, left but little doubt that its visitation would be extended to this continent. It became a

subject of mingled curiosity and anxiety to watch the period of its arrival, and the point of its invasion.

In this state of uncertainty, intelligence arrived that the disease had appeared at Quebec on the 8th, and at Montreal on the 10th June, in both which cities it immediately assumed the character of a most destructive pestilence.

From the numbers of emigrants, who, about this period, had landed at Quebec, and arrived at Montreal from England and Ireland, a first impression was created, that they had been the means of transmitting the epidemic across the Atlantic. A more close investigation into the facts connected with the commencement of the disease in those cities, served to destroy this supposition. It could not be traced to importation. The emigrants and lower classes of the Canadians were attacked simultaneously in both cities. Numbers of the emigrants were in circumstances eminently predisposing them to suffer attacks of disease, and they and the lower Canadians were precisely the description of persons most obnoxious to the ravages of epidemic cholera, and such as have been universally observed to be its first victims.

The lines of communication between the cities of Quebec and Montreal, and the cities of the United States, are by the Richelieu river, Lake Champlain, and the northern canal leading to Troy and Albany; or by the St. Lawrence to Lake Ontario, to Buffalo, and by the Erie canal leading to Rochester and Albany. It was confidently expected that the disease would penetrate into the United States from Canada by these routes. Along the first, many cases of the disease did certainly occur in the persons of emigrants, but they terminated without its communication to others. On the contrary, the epidemic manifested a decided predilection for the shores of the St. Lawrence, successively attacking the towns and villages along its banks, then following the borders of Lake Ontario, until it entered Lake Erie.

While attention was directed to the northern and western boundary, supposed to be threatened by the invasion of the disease, it suddenly and most unexpectedly appeared in the city of New York.

The first case occurred, it is said, on the 24th June, when a man, a native citizen, residing at the corner of Gold and Frankfort streets, was attacked by the disease. Four cases soon succeeded, the location of which was in Cherry street. The subjects were Irish emigrants, who had arrived at Quebec in the autumn of 1831, and had resided in Albany until the month of May, when they removed to New York.

On the 27th June, the disease manifested itself in Bellevue Alms-house, distant about three miles from the city. The patient was an aged woman who had not left the house for three years, who had held no communication with the city, and no admission into the ward she occupied, had taken place for a month. Several cases immediately ensued in this and the other wards of the house. The epidemic reached its maximum in this establishment on the 11th July, and terminated on the 4th August.

In the city of New York, the climax of the epidemic arrived on the 21st of July, from which period it continued very steadily to decline.

The time that elapsed from the outbreaking of the epidemic at Quebec, and its appearance at New York, is a period of sixteen days, or nineteen at Bellevue Alms-house. The distance between the two cities in a direct line, is four hundred and fifty miles.

It is to be remarked, that all the intermediate cities on the sea-board of the province of New Brunswick and Nova Scotia; of the states of Maine, Massachusetts, and Rhode Island, remained entirely exempt from the epidemic; and even to the present period, except in Providence, Newport, and Boston, no cases have as yet appeared.

The moral resolution, calmness, and perfect freedom from alarm and panic, generally manifested by our citizens, and inspired by a thorough confidence in the efficacy of the preventive means enforced, in the advantages for salubrity of the city, and in its medical resources,

contributed in no small degree to diminish the number of cases, and the intensity of the attacks. No stores were closed on account of the epidemic, and not more citizens left the city than usually abandon it every summer. A stranger entering our streets, from the busy throng and cheerful aspect of all he met, would never have suspected the existence of an unusual and a desolating scourge."

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## XXV. RICEAN DOCTRINE OF CHOLERA.

It is a good many years ago that a worthy member of our profession (now dead) amused the world by a promulgation of what he termed the "Reecean Pandects of medicine." The Pandects did not last long, nor transmit the author's name to posterity.; but they created a sensation—or a laugh—for the time; and that, perhaps, was all that the promulgator expected. A few years afterwards, when the cholera broke out epidemically in India, our brethren there were entertained with a "RICEAN PANDECT," issued by Dr. Tytler, and in which he undertook to trace that fatal malady to the use of damaged rice. Like the pandect of medicine at home, the rice doctrine had but a short existence in a tropical clime —and we were rather amused to find that the ingenious author had recently hit upon a plan of resuscitating his defunct doctrine before the London Medical Society. Considering that the cholera itself had nearly disappeared, and that the Society would be scarce of subjects, we have no doubt that Dr. Tytler brought forward the RICEAN PANDECT as a mere joke, to make the Cockneys stare. While some appeared, on the prima facie statements of the Doctor, to become converts, others remained sceptical—and a good number of malcontents evinced a slight degree of impatience at the joke, which they appeared to think was carried rather too far by the facetious wise man of the East. Dr. T. evinced very great ingenuity in his theories. Many people would have found some difficulty in accounting for the hop, step, and jump march of cholera—for its whimsical attachment to one bank of a river, or side of a street, in preference to another bank or side—for its attacking the east wing of an army, or the larboard watch of a ship, although the soldiers and sailors were all using the same rice—for its passing through countries where little or no rice (and certainly none from India) was used—and for its first appearing at Sunderland, where there was no direct communication with India, instead of breaking out in London and Liverpool, where vessels from India, with plenty of rice, had been arriving almost daily, from 1817 to 1832. All these difficulties were easily overcome by the Doctor. He clearly explained how cholera desolated the cottage of the Highlander in the wilds of Rossshire, and the hovel of the Irishman, among the bogs of Allen—where oatmeal and potatoes were the common food, and where rice would not have been recognized if shown to the inhabitants!

And how are all these difficulties got over—how is the *oryzean* etiology of cholera proved? He might have proved it by an argument, we think, the most irresistible—the most convincing. Did not every practitioner find that a cholera patient voided *rice-water* stools before death? How could there be rice-water in the stools, if there were not rice in the food? This argument would have been demonstration itself! But the Doctor did not use it. The rock, as he expressed it, on which he stood, was the circumstance that, into a jail at Allahabad, which he guarded against bad rice, the cholera did not enter, though it prevailed in the town and country around. Why this is the very rock on which the contagionists have rested their chief arguments, ever since the epidemic began to spread westward. Dr. Tytler might find a whole chain or reef of these rocks, extending from the Ganges to the Clyde, and where cholera was excluded—not by keeping out bad rice, but by guarding against the introduction of contagion! Gateshead alone would carry conviction to the most decided oryzean theorist, that rice was not the cause of cholera. For nearly six weeks the

disease prevailed at Newcastle upon Tyne, while the inhabitants of Gateshead, separated only by a bridge, remained free. But a north-east wind set in, and in 24 hours the disease was in 20 different parts of Gateshead!

But the Doctor is a perfect Proteus. No sooner do you jam him up in a corner, than he transmogrifies himself into some other shape—and you have to begin a fresh attack! Thus, when the partiality of cholera for one bank of a river was asked to be explained, the Doctor had an answer all cut and dry. The boats with bad grain all landed on one side, and those with good grain on the other! When it was asserted that some people got cholera who ate no rice at all—Never mind that, says the Doctor; they ate bread—and ground rice is frequently mixed with flour. When the Highlanders were instanced, who lived on oat-cake—the Doctor averred that his grandmother, or some other old woman, fed her children on ground rice! But some people did not eat bread at all, (as the poor Irish in the interior of Ireland)—and yet got cholera. No matter for that. Starch is frequently adulterated with rice, and being thus applied to the body by means of linen, is absorbed, and produces cholera. Some people, however, had not the luxury of starched shirts, and yet fell victims to the epidemic. What of that, says the Doctor,—Captain Vanslobberbreeks, of Batavia, assured me that rice taints the air—and thus we may get it through that medium, if we neither eat, drink, nor wash our shirts!

In short, there has not been a more amusing exhibition at any medical society, in the annals of medicine, than this exposition of the Ricean doctrine. Nothing can be more clear than that Dr. Tytler is a sincere convert to his own theory, and that he has a firm belief in its truth. It is a mental delusion —for every individual has his "mentis gratissimus error"—before which all difficulties melt away—nay, where every opposing fact becomes only a buttress in support of the hallucination. Dr. Tytler's delusion is only a little more conspicuous than those of his neighbours. Each has his idola specus —and his is damaged rice. The universality of this agent is only equalled by that of the electric fluid itself. The pestilential ergot of rice—

> Lives through all life, extends through all extent;
> Spreads undivided, operates unspent!

We do not believe that the "three glorious *nights*" in Bolt-court have made a single convert to the doctrine—nor do we know any class of society who are likely to benefit by the oryzean discovery—except the MARKET-GARDENERS. We have no doubt that the magnates of this useful class of operatives will give Dr. Tytler a dinner at the Albion Tavern, in consequence of his having rescued fruit and vegetables from the stigma lately affixed to those delicious products of mother earth, as the cause of cholera.

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## XXVI. BRISTOL MEDICAL SCHOOL.

We observe with pleasure that this great commercial city has added one more provincial school of medicine to the list. In a well-planned introductory lecture, at the opening of the school in October last, Mr. Hetling, the surgical lecturer, has pointed out, with much force, the benefits which must accrue from provincial schools of medicine. We can only make room for the following extract.

"The advantages resulting from these provincial medical schools must afford unmixed satisfaction to society in general; and in particular to parents, who will hail the introduction of them as a great domestic and moral improvement in their families, for it will be no longer necessary for you, or students in large cities, to be separated from the comforts and superior advantages of home, to reside for years in the cheerless, heartless, lodgings of London, where you would be exposed to so many more temptations likely to withdraw you from study.

It may not be misplaced here, again to recount the advantages this city possesses for a great medical establishment. With a population equal to that of many of the capitals of Europe, with a large and well regulated hospital and

medical school, the student here may learn not only the principles and practice of Medicine and Surgery, but also observe and witness on a great scale the nature of most of the various diseases which afflict mankind in every part of the globe."

Dr. Carrick's address on opening the Bristol School, though hastily got up, having only 24 hours' notice, contains matter of much importance. We are not a little gratified to find the sentiments of this distinguished physician so completely in accordance with our own—sentiments which we have long endeavoured to impress on the minds of our professional brethren. The following passage will prove this.

"No man can be a thorough good Surgeon without being, as to education, a good Physician; nor can any man be a good and well qualified Physician without all the essentials of surgical education. I do not, however, consider the hitherto customary apprenticeship as at all an essential or necessary part of surgical education. On the contrary, an apprenticeship in a small town or city, where neither Infirmaries are to be found, nor Anatomical Lectures given, is a cruel waste of time. The benefit derivable from a five, or from a fifty years' apprenticeship, under such circumstances, is not worth three straws to its ostensible object, the apprentice. It may be otherwise, no doubt, in places where Medical Schools and Hospitals exist; as in such places some portion of the apprentice's time may be profitably employed in the lecture room, &c.; but this, be it observed, is altogether independent of the apprenticeship, and could be equally well accomplished without the apprenticeship as with it."

"I am not insensible to the very considerable improvement which has of late years taken place in the education and acquirements of the Apothecaries and general Practitioners of the present day, nor to the services which the Apothecaries' Company have rendered the profession and the public by their active legislative exertions, while the College of Physicians, the accredited guardians of the profession and the public; with whom these, and many other improvements ought to have originated, have actually done nothing, or nothing to the purpose; but sat dosing over their dignity, and exclusive privileges, while the wily and worshipful Company were cutting the grass under their feet.

In what I have stated above, I only meant to enforce a very obvious truism —that since Apothecaries and Surgeons act now as Physicians, the public have a right to expect that they should have the Physicians' education, and not the Druggists'; the first and most obvious step towards which would be, the abandonment of the time-killing apprenticeship. Without some such approximation in the education and qualification of all the members of the Profession, there never can exist amongst them that harmony and good will, and united energy and zeal so greatly to be wished, and not more important to their own interest than the public welfare."

We wish the Bristol Medical School every success.

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## XXVII. Remarkable Case of Wounded Intestine, which occurred in the practice of J. D. Davids, Surgeon, of Cowes.

[Extract of a Letter.]

*Case.* Dec. 11th, 1832. William Kemble, æt. 21, of spare habit, a butcher in Cowes, was gored in attempting to slaughter an ox without the precaution of making the animal fast. The accident happened two miles up the country, and he was brought to Cowes in a butcher's cart. I found him supported in a chair, vomiting, and in a state of great prostration. On removing his clothes I discovered about six inches of small intestine protruding through a wound in the lower part of the abdomen, just above Poupart's ligament, and about an inch external to the abdominal ring. I had him placed in bed, and on examining the intestine which was strangulated, I found that it had been completely perforated by the horn which entered it on one side and came out at the other, consequently making two apertures, through which I could pass my finger with ease. No fæces

had escaped, nor had there apparently been much hemorrhage. The lips of the wound were everted, exposing the mucous coat of the intestine. I immediately brought the larger wound together with two sutures, and the smaller with one, *and cut the ends of the silk close to the knots*. I then attempted to return the gut, but found that impracticable, without dilating the external wound, which I did with a probe pointed bistoury to the extent of about half an inch towards the ilium. By that means I was enabled to replace it in the abdomen. The external wound was closed with sutures supported by strips of adhesive plaster, and the patient was now (4 o'clock, p. m.) left. I saw him again at five, and found that he had vomited several times during my absence; there was also great tenderness to the touch generally, over the abdomen, and some reaction had taken place. Twelve leeches were applied to the abdomen. *Nine o'clock.* Pain much relieved by the loss of blood. I left him for the night, with an injunction that nothing should be given him but barley water.

12th. Had been restless and vomited several times during the night. There was a good deal of constitutional irritation, but no increase of pain in the abdomen. G. opii, gr. j. hac nocte.

13th. Had a quieter night and vomited much less frequently; complained of tenesmus. An enema was administered composed of ol. ricini, ʒiij. decoct. hordei, ʒv. with a view of emptying the rectum, which it did. Repet. pilula.

14th. Passed a tolerable night; vomited only once, but much annoyed with flatus. Enema repeated with the addition of infus. sennæ, ʒvj.; this brought away some fæces and grumous blood. Repet. pilula.

15th. Had another fair night; but complained of the bowels being painfully distended with flatus. Ol. ricini, ʒj. was given by the mouth in a little coffee and retained, which acted very satisfactorily on the bowels. Barley water had hitherto been his only sustenance; but to-day a little veal broth was allowed in addition. From this time, with the assistance of an opiate at night and an occasional aperient, he went on progressively mending till Christmas day, when he was induced to partake of some pheasant and mince pies for dinner. This indulgence was followed by excessive vomiting in the night of the 25th, and he was feverish and restless during the three succeeding days; however, attention to the bowels and abstemious diet, again brought him round, and he recovered from that period without the recurrence of any untoward symptom. A small abscess formed underneath the external wound, which discharged itself in due time, and the wound healed kindly by granulations. One of the sutures only made its way out through the wall of the abdomen; the other two I presume passed into the cavity of the intestine. There is a very considerable hernial tumor in the iliac region, rather above the seat of the wound, with, I conceive, adhesion of the intestine to the parietes of the abdomen, but it is attended with no inconvenience, as the man is able to undergo great fatigue, and is frequently to be seen riding saddleless on a rough trotting horse, with impunity. He wears a truss with a broad pad for security, and he assures me now, Oct. 1833, that his health is perfectly unimpaired by the injury.

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## XXVIII. On the Use of the Stomach-pump in breaking down Coagulated Blood in the Bladder. By J. Simpton, Surgeon, Ecclefechan, N. B.

*Case* 1. Mr. G—k, aged 76 years, has been subject to retention of urine for years past, which was generally relieved by fomentations, without the aid of the catheter. On the 18th February, 1826, I was requested to see him. He had passed no urine for 48 hours, the bladder was enormously distended, and upon introducing the catheter, which was done with some difficulty, owing to enlarged prostate and strong spasm of the neck of the bladder, a large quantity of brandy-coloured urine was drawn off. Inflammation succeeded, to subdue which, relays of leeches, fomentations,

diluents, and in fact every antiphlogistic measure that the patient's age and constitution would admit of were found necessary. The distance from my own residence being three miles, and the bladder having now got so irritable as to render it imprudent if not impossible to leave a gum catheter introduced, my excellent assistant, Mr. Scott, (now surgeon, Pool Lane, Liverpool,) was obliged to remain to draw off the water, as it collected. Upon the inflammation subsiding blood began to come away in considerable quantities mixed with the urine. Things went on in this way for some days, when, on the 24th, a short time after the water had been drawn off, Mr. G. was seized with severe pain and the sense of distention, but on the instrument being re-introduced no water would flow. After some fruitless attempts Mr. Scott sent for me, when it appeared evident that coagula had formed, for, on withdrawing the catheter, its eyes were completely plugged, and on moving it from side to side when in the bladder, it gave a sensation to the fingers as if its point was immersed in some consistent or boggy substance, a particle of which I was unable to remove. The patient was in dreadful agony, and being made aware of the cause, begged me, for God's sake, "to cut in and take it out." Undisputed authority would have sanctioned a compliance with the old gentlemen's request, for not long previous, and under nearly similar circumstances, Mr. Hutcheson,* with the approbation and in the presence of Sir Astley Cooper, cut in above the pubes, and scooped out the coagula with a table-spoon. Mr. H.'s patient died, and I had every reason to dread that mine would have gone the same road. Confident that the excruciating pain did not proceed from actual distention of the bladder, I resolved to break down the coagula by mechanical means, and for this purpose inserted a tube, connected with the shoulder of the stomach-pump, into a large double-eyed catheter, and threw in a quantity of tepid water with as much force as the pump would work, wriggling the catheter at the same time as much as possible, so that the streams might play in all directions. Pain was in some measure increased by distention, but this was of short duration, for in less than a minute after removing the tube the injected fluid came away by the catheter, mixed with a considerable quantity of blood. The bladder was completely emptied and immediate relief followed, so much so that the patient expressed himself "in Heaven." In a few hours blood again collected, coagulated, and was removed in the same way with the greatest ease.

The hæmorrhage now diminished, but it was the 9th of March before he could dispense with the use of the catheter, since which time he has not required its aid. Mr. G—k still lives.

The second case may be soon told. Mr. Thomas Maxwell, aged about 70, had been subject to retention of urine for some years, but was in the habit of using the catheter himself. The urine was often mixed with blood. On the 15th July, 1826, feeling more pain than usual, he introduced the instrument, but no water would flow. The pain becoming severe with sense of distention, I was requested to see him. From the report of the messenger I immediately suspected what was the matter, and dispatched the abovementioned Mr. Scott, prepared with catheter, pump, &c. Mr. S. found it a case, so far as coagula was concerned, exactly similar to the former, and in a few minutes relieved the poor man in a similar manner. He lived some years after, still, I believe, requiring the aid of the catheter, but without any more attacks of this kind.

Such cases as the above do not often occur, particularly to local practitioners, but, however seldom, it is certainly a desideratum to relieve the patient if possible without the use of the knife. Some die worn out with pain without the coagula being removed in any way.* Mr. Heavisides, an East Indian, was one. He entered the hospital with what was supposed retention of urine, but no water would flow by the catheter. He

* Vide Med. Chir. Review. for Jan. 1825, p. 224.

* Vide Medico-Chirug. Review, for Oct. 1832, p. 492.

died next day, and a large coagula was found in the bladder. The bladder, to be sure, was diseased, but might not the man's life have been prolonged by washing out the mass? The presence of coagula, in my opinion, is easily detected, and by the above plan just as easily removed.

The injection tube belonging to the stomach-pump is what I use—its extremity is too large for the calibre of the catheter, but I connect them by a small brass tube, which slides over the point of the former and into the latter.

*Note by the Editor.* The syringe used by Mr. Costello and other surgeons, for injecting the bladder, after the lithotritic operation, will answer the purpose equally well as the stomach-pump.

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## MEDICAL POLITICS.

### XXIX. THE ALDERSGATE QUESTION.

THIS question, which was designated by some wiseacres as a local *squabble*, has turned out to be a very important subject of discussion, in general medical policy. Although the whole of the public is now acquainted with the resolutions adopted at the Freemason's Tavern, at the Westminster and London Medical Societies, and at various provincial meetings, on the subject of the Aldersgate Dispensary, we deem it essential to the welfare of our profession, to record one set of these RESOLUTIONS in the pages of this Journal, as a specimen of all the others, confident that they will be read and referred to, long after the decease, not merely of the conductors, but of the youngest existing member of the profession. The following are the resolutions adopted at the Westminster Medical Society.

WESTMINSTER MEDICAL SOCIETY.

At a meeting of the Members of this Society, held at the Hunterian Museum, on Saturday, October 26,

Mr. PETTIGREW, President, in the chair,

It was moved by Dr. Gregory, seconded by Mr. Griffith, and resolved unanimously;

That in the opinion of this Society, the interest of the sick poor, and the respectability of the medical profession, equally require that the appointments to public charities should be free from the suspicion of being open to purchase.

Moved by Mr. Chinnock, seconded by Dr. Ryan, and resolved unanimously;

That in the opinion of this Society, the regulations lately adopted by the Governors of the General Dispensary, Aldersgate Street, permitting any person to attend, and vote personally, who should become a Governor, seven days prior to the election, amounts virtually to the sale of the professional appointments.

Moved by Dr. Webster, seconded by Mr. Millington, and resolved unanimously, with the exception of Dr. Epp;

That the cordial thanks of the Westminster Medical Society are due and are hereby given to Drs. Birkbeck, Clutterbuck, Lambe, and Roberts, and to Messrs. Salmon and Coulson, for their noble and disinterested conduct in resigning their offices rather than tacitly assent to the introduction of a law which compromises the honour and independence of the medical profession.

Moved by Dr. Copland, seconded by Dr. Sigmond, and resolved unanimously;

That the most respectful thanks of this Society be tendered to His Royal Highness the Duke of Sussex, for his liberal and enlightened conduct in retiring from the Presidency of the General Dispensary, thereby marking the sense His Royal Highness entertains of the conduct of the medical officers in resisting the adoption of a most obnoxious and pernicious regulation.

Moved by Dr. Somerville, seconded by Mr. Hunt, and resolved unanimously;

That in the opinion of this Society, any physician or surgeon who shall avail himself of such a law, and thus virtually purchase a professional appointment in any public charity, forfeits thereby his claim to the respect of his professional brethren.

Moved by Dr. Somerville, seconded

by Dr. Sigmond, and resolved unanimously;

That the Society pledges itself to bring this amongst other grievances before such committee as may be appointed by the House of Commons to inquire into the practice and regulations of the medical profession.

Moved by Dr. Jewel, seconded by Dr. J. Wyat Crane, and resolved unanimously;

That the thanks of the Society are justly due, and are hereby tendered, to the medical practitioners of Sheffield, Cork, Nottingham, and other provincial towns, for their readiness to stand forward in support of the dignity of the medical profession.

Moved by Mr. Stodart, seconded by Mr. Greenwood, and resolved unanimously;

That these resolutions be signed by the Chairman, in behalf of the Society, and that they be inserted in the several medical journals, and following daily papers:—The Times, Herald, Chronicle, Globe, and Standard.

T. J. PETTIGREW, Chairman.
EDW. STODART, Secretary.

*Remarks.*—Posterity will hardly credit the statement, that, after such decided and unanimous sentiments of reprobation had been issued against the venal law of election, and against all who availed themselves of it, any member of the profession would have the meanness to bow his head to the petty tyrants of corruption, and, for the sake of a little malodorous praise from gin-shops, tallow-chandleries, and fish-mongeries, forfeit the esteem, and incur the everlasting odium of his professional brethren! We are involuntarily induced to admire *courage*, whether moral or physical, even in the *worst cause*; but only when it is coupled with a belief that the possessor of that courage was actuated by some sense of honour and principle in the exhibition of it. It might almost be conjectured that a Burke, when he was strangling his victims, soothed his conscience with some faint idea that he was *promoting science*; but the nature of the placebo, which the PERDITI—the betrayers of their profession—can administer to their souls, is beyond our comprehension! We have racked our invention for a solution of this enigma—but in vain! In some minds, the love of *posthumous fame* is stronger than the love of living pelf or praise. Fame is of two kinds. A pillar stands in Rome to the memory of TRAJAN, the *good*—and another to that of PHOCAS, the *bad*. Trajan worked for FAME—Phocas for INFAMY. It may be said that *ambition* was the ruling passion, in both cases. Be it so! There is no accounting for tastes.—SATAN thought it—

"Better to rule in hell than serve in Heaven."

But how can we account for the preference to "*serve* in hell?" There is a hell in this world, as well as in the next. Every man's conscience is a hell, when he acts wrong—and if those who have plunged—or endeavoured to plunge a dagger in the heart of their profession, can drive from their own breasts the tortures of remorse, we heartily wish them all the advantages of an opiate on this occasion. But we are too well acquainted with human nature to believe that the false and fatal step which a few of our misguided brethren have taken, on this occasion, will prove other than an unfailing source of misery in their breasts to the latest day of their existence.

We understand, indeed, that they are endeavouring to console themselves and their friends with the reflection, that they are martyrs in a good cause—that they took the step they have done in order to break down an odious monopoly, or system of nepotism, that attaches itself to all our hospitals and dispensaries. There can be little doubt that more or less of this evil exists, and that it would be highly desirable that it should be remedied. But we are far from being sanguine in the hope of such purification, unless human nature should take a fit of reforming itself. This nepotism or private influence operates in every appointment, from the Crown down to the beadleship at the doors of our halls and churches. It influences promotion in the public service, and the selection of individuals

for places of emolument in the law. This nepotism enters the sacred temple of our holy religion, and places mediocrity, too often, over merit. It puts a mitre on the head of INTEREST, and thereby keeps TALENT in a curacy for life! How can we expect that such a deep-rooted principle in human nature should fail to develop its activity in our hospitals and dispensaries! But what sort of remedy have the governors of the Aldersgate Dispensary proposed—and their medical helots accepted? They have adopted the system of PUBLIC AUCTION,—not as a substitute for nepotism, but as an additional or aggravating evil! The newly-revived venal law does not check, in the slightest degree, the old influence of nepotism. If a surgeon means to retire, he can easily desire his intended successor to make governors a few months before the secession, and thus avoid the pretended check of canvass which the governors, in their wisdom, have held forth as a panacea for nepotism.

If the governors had had the least desire or intention of really breaking down the medical monopoly, and not the expectation of enriching their treasury, they would have thrown open the competition, and permitted all regularly qualified physicians and surgeons of this metropolis to vote for such candidates as they considered best entitled to the professional charge of the institution. They would have insured an active competition, and what is more, it would, almost to a certainty, have placed merit at the head of the list. The sick poor would thus have been provided with the very best assistance —and no effort of private influence on the part of the existing medical officers could have prevented the fair exercise of the only voters qualified to judge of the capacities of the candidates. The subscription of a guinea, or of five guineas to a charity, could never have been designed originally to qualify non-professional subscribers for appreciating and deciding on professional merit. The statement which the Aldersgate mentors put forth respecting the power of the medical committee of the dispensary to decide on the pretensions of the candidates, is all a sophism, or rather a deception. They have no other power than that of seeing that the candidates have certain diplomas from certain bodies—which, everybody knows, is no criterion of fitness for an hospital or dispensary at all!

In fine, we sincerely trust that this incident will give origin to much improvement in our public institutions, and throughout the profession at large. But we cannot close our remarks, without adverting, with shame, to the conduct of our hospital and dispensary functionaries on this occasion. With three or four honorable exceptions, they all hung back, and took no part whatever with their brethren, in this contest with tyrannical governors and venal regulations.

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## XXX. LIVERPOOL MEDICAL SOCIETY.

THE Liverpool Medical Society has met three times this present session in the Royal Institution Rooms. *Dr. Baird* had met with a most interesting and rather obscure case in private practice. An elderly gentleman of full habit was seized with a distressing urinary affection after some day or two of general indisposition. Urine at last dribbling away involuntarily. Pulse full, 108—(100) intermittent in one arm, which became cold—fingers blue and circulation ceased gradually from below upwards. Patient very restless—getting out and into bed continually. Sensation and motion but little impaired and consciousness unimpaired till the last. The pulse was imperceptible in the arm as high as the axilla. The extremity was quite cold, and got *perfectly black.* (See P. S.) Death. No *autopsy* procured. Query, What was the nature of the local affection? This case gave rise to much speculative discussion. Some thought the local disease was a form of Pott's gangrene. Others talked of ossification of inner coat of arteries—spiculæ being "perhaps" detached and plugging up the circulation, &c., others thought the case explained by Dupuytren's cases of inflammation of the

veins, &c. But perhaps the most probable supposition (in the absence of proof which dissection would have afforded) was, that hæmorrhage had occurred into the sheath of the ganglionic system of the nerves presiding over the irritability and contractility of the arteries of the limb: the pressure thence arising causing *apoplexy*, so to speak, of the extremity. Of course the rationalé of the local symptoms was based on Tiedemann and Gmelin's views, that the ganglia control and regulate the function of circulation.

The profession had a public meeting to-day, when resolutions were passed approving of the conduct of the late Aldergate Street Dispensary officers.

I cannot allow this opportunity to pass without mentioning symptoms which again and again I have known to occur when the nitrate of silver pill was taken at bed-time. Towards morning (pill being taken at bed-time) the patient frequently complained of an odd sensation as if slight *effervescence* were taking place, *here and there*, along the alimentary conduit. Headach, too, generally was present in the morning, in such instances.—*J. S. T.*

*P. S.* In Dr. Baird's case I should have mentioned that "the extremity became quite cold and perfectly black," and that the old gentleman felt as if a *wet* glove was on his arm, which he continually attempted to strip off with his other hand.

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## XXXI. BRISTOL MEDICAL CONVERSATION SOCIETY.

THE first meeting of this Society took place at the Bristol Medical Library on the 19th of October last, when Dr. Davies presided, and delivered an address to the meeting. This event is likely to prove of general, rather than of local interest, and we hope that similar associations will take place in all our large towns. Dr. Davies took this opportunity of reporting two cases of strangulated hernia, as the commencement of the conversations.

The first case was that of a lady between 70 and 80 years of age, who had laboured under symptoms of strangulated hernia for more than forty-eight hours. The taxis having been unsuccessfully tried, Dr. Davies operated. The omentum was found to be much indurated; and a portion, weighing four ounces, was removed by the knife. Three ligatures were necessary. The old lady recovered perfectly.

*Case* 2. This was a young married woman, who, after one or two equivocal abortions, was suddenly seized with severe pain, nausea, vomiting, low, quick, and fluttering pulse, cold and clammy perspirations, &c. Dr. D. was led to suspect hernia; and, on examination, detected a femoral rupture. Under very disadvantageous circumstances, Dr. Dr. proceeded to the operation. The hernia was found to consist, anteriorly, of omentum, behind which, was a fold of intestine in a suspicious state of integrity. The omentum was indurated, in a great part, and removed by the knife, as it could not be returned with the intestine; and the patient did well, though she required very active treatment afterwards.

We conclude by again wishing prosperity to the Bristol Medical Conversation Society.

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## XXXII. NAVAL MEDICAL OFFICERS.

*Admiralty-Office, 15th May*, 1833. The Right Honourable the Lords Commissioners of the Admiralty having been pleased to direct, "that no person be admitted to be a Candidate for the situation of Assistant Surgeon in the Royal Navy, who shall not produce a Certificate from one of the Royal Colleges of Surgeons of London, Edinburgh, and Dublin, of his fitness for that office; nor for that of Surgeon, unless he shall produce a Diploma, or Certificate, from one of the said Royal Colleges, founded on an examination to be passed subsequently to his appointment of Assistant Surgeon, as to the Candidate's fitness for the situation of Surgeon in the Navy; and that in every case the Candidate producing such Certificate or Diploma, shall also

undergo a further examination before the Physician of the Navy, touching his qualifications in all the necessary branches and points of Medicine and Surgery for each of the steps in the Naval Medical Service;" The Physician of the Navy doth hereby signify, for the information of those persons to whom it may relate, that these regulations and directions will be strictly adhered to: and further, that previously to the admission of Assistant Surgeons into the Navy, it will be required that they produce proof of having received a classical education, and that they possess in particular a competent knowledge of Latin; also

That they have served an Apprenticeship, or been employed in an Apothecary's shop for not less than two years.

That their age be not less than 20 years, nor more than 26 years; and that they are unmarried.

That they have attended an Hospital in London, Edinburgh, Dublin, or Glasgow, for 12 months.

That they have been engaged in actual dissections of the human body 12 months; and

That they have attended Lectures, &c. on the following subjects, at established Schools of Eminence, for periods not less than hereunder stated; observing, however, that such Lectures will not be admitted for more than two different Branches of Science, by one Individual, viz.

| | Months. |
|---|---|
| Anatomy | 18 |
| Surgery | 18 |
| Theory of Medicine | 6 |
| Practice of ditto | 12 |
| Clinical Lectures on the Practice of Medicine & Surgery | 6 |
| Chemistry | 6 |
| Materia Medica | 6 |
| Midwifery | 6 |
| Botany | 6 |

Although the above are the only qualifications which are absolutely required in Candidates for the appointment of Assistant Surgeon, a preference will be given to those who, by possessing a knowledge of diseases of the Eye, and of any branch of science connected with the profession, such as Medical Jurisprudence, Natural History, Natural Philosophy, &c., appear to be more peculiarly eligible for admission into the Service.

It is also to be observed that, by the Rules of the Service, no Assistant Surgeon can be promoted to the Rank of Surgeon until he shall have served three years in the former capacity, one year of which must be in a Ship actually employed at Sea; and it is resolved that not any Diploma or Certificate of examination from either of the aforesaid Royal Colleges, shall be admitted towards the qualification for Surgeon, unless the Diploma or Certificate shall be obtained on an examination passed after a period of not less than three years from the date of the Party's admission into the Service; and whenever Assistant Surgeons already in the Service (whose professional Education may not be in accordance with the above) obtain leave to study previously to their passing for Surgeon, they will be required on their Examination to produce Testimonials of their having availed themselves of the period of leave to complete their Education agreeably to these Regulations. W. BURNETT,

*Physician of the Navy.*

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## XXXIII. PORTRAIT OF THE LATE JOS. BROOKES, F.R.S.

13, *Middlesex-place, Lisson Grove, Nov. 16th*, 1833.

Sir,—I am requested by the Committee formed for the purpose of devising the most efficient means of erecting a Monument or Memorial of the late Joshua Brookes, F.R.S., to announce, through the medium of your Review, their wish of its being generally understood, that an Engraving of the late Professor is published at One Guinea, the profits arising from the sale of which will be devoted to the above purpose, and subscriptions are also opened for the same object at the residence of each member of the Committee, and the Secretary, who respectfully solicit the aid of those members of the profession who may feel anxious to preserve some memorial of

an eminently industrious and scientific anatomist.

J. C. Carpue, Esq. F.R.S. *Chairman.*
H. S. Chinnock, Esq. *Brompton.*
P. H. S. Colson, Esq. 25, *Goswell-road.*
Robt. Davey, Esq. 19, *Gt. Ormond-st.*
H. Davies, M.D. *Saville-street.*
T. Fowkes, Esq. *Mary-st. Regent's-pk.*
H. Hunt, Esq. 15, *Lower Brook-street.*
T. Hodges, Esq. *Grays-Inn Lane.*
J. Johnson, M.D. *Suffolk-pl. Haymark.*
J. Kendrick, Esq. 12, *Manchester-street, Manchester-square.*
T. Litchfield, Esq. *Twickenham.*
J. Lavies, Esq. *King-street, Gt. George-street, Westminster.*
J. Malyn, Esq. 25, *Duke-street, Westminster.*
J. Nicholles, Esq. 35, *Conduit-street.*
J. T. Pettigrew, Esq. F.R.S. *Saville-st.*

Trusting that you will find room for the insertion of this in your valuable Review, I am, Sir,

Your most obedient Servant,
H. BENHAM,
*Treasurer & Secretary.*

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## XXXIV. OBITUARY.

Died suddenly at his residence in St. Paul's Churchyard, on the evening of the 1st of September, 1833, our oldest cotemporary—the father of the London medical press, in the 34th year of his age. Some of his intimate friends suspected that he was in a *decline* for some years past; but he himself never would allow of this—and maintained, up to the day of his death, that he was in perfect health—and that all his worldly affairs were in the most flourishing condition. We have not heard that any *post-mortem* examination has been made; but, as he was attended by two practitioners of talent and experience, we entertain no doubt that a report will be published of the cause of this awful and sudden visitation. We have learnt from very good authority, however, that the deceased evinced symptoms of ossification of the heart, with much embarrassment, both in the breathing and the *circulation*, for some time before his death.

Our late cotemporary first saw the light—if it deserved that name—in the dark purlieus of Red Lion-court, Fleet-street, on the first day of March, 1799—by the assistance of the late Dr. Bradley and Dr. Willich. Though apparently free from any hereditary taint, it was his good or bad fortune to be constantly in the hands of doctors—and it might be said, with strict truth, that he lived upon medicine—that his whole and sole food was physic! How he contrived to live so long, upon such innutritious provender, is the great wonder!

He had a very clever nurse, however, in the person of one Phillips, residing in Bridge-street, Blackfriars, who brought him up with great care. His first introduction to practice was greatly promoted by cow-pox, which had then been discovered, and the deceased acquired much fame and fortune by the part which he took in the discussions on that subject. His practice rapidly increased, so that in 1803, he had nearly *three thousand* names of patients on his books!

In 1805, a Scotch Doctor (Duncan) set up in opposition, and the deceased, in that year, saw a defalcation in his practice to the amount of seven or eight hundred patients. In 1810, another competitor came into the field; but did not affect the practice of the deceased in any material degree. In the following year, however, a company of apothecaries, among whom were Dr. Thomson and Dr. Burrows, started an opposition, and reduced the income of the deceased very alarmingly. In 1818, we first became acquainted with the deceased as a contemporary; and although he certainly treated us with great shyness and suspicion, we are not conscious of having ever injured him, or clandestinely deprived him of a single fee. Of late years, however, the number of competitors greatly accumulated, and the deceased, always of a sallow complexion, appeared to become affected with permanent jaundice. At length he suddenly expired—and thus fell the last of the Mohicans—or at least of the MONTHLIES—not an individual of that species now remaining in the British dominions!

The death of our patriarchal contemporary may teach the most youthful and the most robust of his surviving family to repress pride, and expect the same fate, sooner or later. No journalist ever kept the field so long as he who has just quitted this earthly scene. It was supposed that this very protracted existence, and the numerous progeny which he had all over the world, would have so securely propped him up, as to render him almost immortal. But journals, like their conductors, have their epochs of rise, acmé, and decline—a destiny which seems inseparable from every thing on the surface of our globe.

It is curious that our Parisian neighbours issue forth eight or ten monthly medical journals, while not one now exists in the United Kingdom.* Periodical medicine, in this country, has deserted the middle path—and finds no resting-place now between the hebdomadal and trimestral orbits. There are now five quarterly, and three weekly journals devoted to medical literature in the British Isles. Whose turn comes next to take leave of the stage? Each is, no doubt, inclined to hope that he will be spared a little longer than his neighbour.

"Et mihi forsan tibi quod negarit
Porriget hora."

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XXXV. CASE OF AMPUTATION IN AN INFANT SEVEN WEEKS OLD. By J. PAUL, M. D. Surgeon to Gray's Hospital, Elgin.

THE following case is remarkable on account of the tender age of the patient. We can only spare space for the naked facts of the case.

"A male child, seven weeks old, was brought to me by his parents in the month of September, with an enormous swelling of the right leg, which had all the characteristic marks of fungus hæmatodes. The swelling was soft and elastic, bulged out in various parts, and presented a livid hue at the most depending point, with enlarged cutaneous veins. At birth two tumours were observable, the one running into the other; the lower one was said to be about the size of a turkey's egg, and the other somewhat less. The child's health was tolerably good.

The whole leg being involved in the morbid action of the disease, nothing but amputation above the knee even required the consideration of a moment, and the patient being so young this alternative was deemed almost too desperate; at least some delay was thought prudent. The parents were therefore advised to take their child home, and return when the swelling burst.

They had not been at home many days when the swelling did burst, and so profuse was the hemorrhage that in less than one minute the infant was in a state of syncope, and for two days life appeared to be almost extinct, so much were the vital endowments depressed. The hemorrhage was controlled by pressure, and the little patient rallied after a few days.

He was admitted into *Gray's Hospital* on the 3rd of October, and at this time, although not three weeks since I had seen him, it was manifest the disease was in progress. The swelling hung down from the malleolus internus on a line with the sole of the foot, and extended to the internal condyle of the femur. In the livid portion of the swelling ulceration had taken place, and a fungus, in appearance like brain, with portions of blood on its surface, had sprung up. It was two inches and a half in diameter, and the skin around its circumference appeared red and inflamed. The circumference of the limb across the fungus was eleven inches and a half, and nine and a half close to the knee. No part of the tibia could be discovered except close to the ankle-joint; the fibula could be traced, but there was an immense covering of dense and elastic cellular texture over it. The child looked pale, and the discharges from his bowels were profuse and of a greenish colour.

The following day, Oct. 4, with the assistance of Mr. William Robb and Mr. Robert Paterson, surgeons, and Mr.

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* We forgot the Liverpool Monthly Gazette.

John Grigor, student in medicine, I amputated the limb above the knee, and used two lateral flaps. Scarcely a tablespoonful of blood was lost. About the same number of arteries as in the adult were secured, and whilst they were being secured the blood effused on the stump coagulated readily. The flaps were kept in apposition by means of stitches."

The child lived till the 2d of November, and then died of the consecutive fever, the stomach being entirely free from inflammation. We think Dr. Paul was justified, under the circumstances of the case, in performing the operation, and thus giving the little sufferer a chance, however small, of life.

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## XXXVI. REMARKABLE CASE OF PULMONARY ABSCESS, UNPRECEDED BY ANY SERIOUS SYMPTOMS.

[Communicated by J. A. ORE, Assist. Surg. 8th Royal Irish Hussars.]

THOMAS GLYNN, aged 18. The subject of this case was one of those misguided people known in the wilds of Connaught by the designation of "Terry Alts," or "White-feet." This lad, along with several others, having been engaged in incendiary acts, was arrested in the night of the 19th March, 1831, and on being ordered to proceed along with the military escort to Gort, pleaded his inability to walk that distance, being six Irish miles; and was consequently left in his hut with a guard. On the following morning I was ordered to proceed and report on the state of his health and fitness to undertake the journey. On examination he was found to labour under *some difficulty of breathing*, attended with heat of surface and foul tongue; pulse about the natural standard, firm, and regular. He had a Burgundy-pitch plaster on his chest, recommended and supplied by *some St. John Long* in the neighbourhood. On interrogating him by means of a policeman, as my patient neither understood or spoke English, he stated that he never had any serious illness, or was prevented following his daily pursuits as an agricultural labourer, and there was much evidence that he had been engaged in many similar acts to that for which he was taken up, requiring personal energy and stratagem in their execution. Considering the very equivocal circumstances of his case, his transmission in a cart was determined upon, and I accompanied him to Gort. On his arrival there, he complained of fatigue, and that there might be no lack of humanity, he was taken into a vacant ward of the Detachment Hospital and a sentry placed over him; a few days afterwards he became an approver, and from this period the difficulty of breathing became mitigated, and was unaccompanied with the slight febrile symptoms which previously existed: there was no cough during the whole period he was under observation. On the morning of the 1st of April, he was somewhat agitated at the thoughts of being about to be confronted as a witness against his quondam friends, and having eat breakfast, set out in a post-chaise, accompanied by a party of Hussars, for Galway, where the Assizes were then being held. About four miles from Gort, the serjeant of the party, not perceiving him sitting up in the carriage, opened the door and found him dead. On examining the body to ascertain the cause of death, it was discovered to have proceeded from the rupture of an abscess in the right lung, containing no less than *eight pints* of a greenish-yellow pus: the left lung was perfectly sound, healthy in its structure, and of natural appearance. The viscera of the abdomen, pelvis, and head were more than usually healthy; the body was not emaciated; the external appearance or formation of the thorax gave no indication of such extensive disorganization as appeared on dissection. During the period he was under observation, he took merely some antimonial and purgative medicines.

The lung was removed quite entire, and after preparation forwarded to the Army Medical Museum at Chatham. This case is interesting as regards the enormous size of the abscess, unattended, from all that could be ascertained of the history of symptoms, by any indisposition of importance.

II.

## SPIRIT OF THE FOREIGN PERIODICALS, &c.

### I. Use of Acetas Plumbi in several Pulmonary Affections.

*Case* 1. A woman, aged 32, of a phthisical constitution, was labouring under the symptoms of general pyrexia, accompanied with frequent cough and purulent bloody expectoration. She had suffered a smart attack of pleuritis twelve months before, and from that time had become considerably emaciated. A small bleeding and the employment of sal ammoniac, with small doses of the tart. antimon. and an occasional powder of calomel, relieved the fever and dyspnœa; the sputa were now free of any blood, but became more and more purulent. I ordered her the acetas plumbi and opium (of each ¼ gr.) every eight hours, and in the course of eight days she was astonishingly improved. Under the use of a decoction of lichen and polygala amara (boiled together till a complete jelly is formed), she quite recovered her health.

*Case* 2. A man, aged 33, who had suffered repeatedly from attacks of pneumonia, was again labouring under its symptoms; they had lasted for seven days, when Dr. R. was called. By large bleedings and the use of nitre, combined with tart. antimon. in aqua laurocerasi, the inflammation was speedily arrested; but there remained a most copious expectoration, and the sputa were assuming a more purulent appearance. Pills, composed of the acetas plumbi and opium, were given with very marked benefit; the use of them was continued for six weeks, after which time the patient was entirely well.

*Case* 3. A child, five years old, had been treated by many different physicians for a phthisical irritation of the lungs, with repeated blisters, leeches, and the use of digitalis. The little patient expectorated a vast quantity of sputa, when I ordered him the following—

℞. Sacchari saturni. . gr. ij.
Infus. digitalis . . . unc. vj.
Laudani liquidi . . ℥j. Misce.
Capt. ʒij. ad ʒiv. 6tâ vel 4tâ quâque horâ.

In three days the expectoration was greatly diminished, and the boy improved in other respects. He speedily was quite well.

*Case* 4. May 16th. B. W. aged 44, a professional musician, after exposure to cold, was seized with shiverings, followed by heat, with severe pain in the chest, laborious respiration, cough, and frothy discoloured expectoration. Venesection to a pint, and repeated doses of nitre and antimony ordered.

16th. All the symptoms aggravated; blood exhibiting a thick buffy coat—venesection to be repeated. While the blood was flowing, he felt himself much relieved; but immediately afterwards all his distress returned; the frothy sputa were in enormous quantities, so that the patient could with difficulty expectorate—the mucous rattle was exceedingly loud, and the breathing was much oppressed. A grain of calomel, and three of the red sulphuret of antimony, were ordered to be given every two hours, and the refrigerant mixture to be continued.

Little or no relief, however, was procured; the gurgling and rattling in the chest were truly frightful—the sputa were still frothy and tinged with pure blood, and their expectoration was painful and distressing. The bleeding from the arm was repeated once more, in consequence of the blood having presented, on both occasions, a very thick and tough crust; but no advantage followed, and being now alarmed that the accumulation of the sputa in the air-cells, and that the co-existing infiltration of the substance of the lungs, might speedily suffocate the patient, I resolved

to commence the use of the acetas plumbi and opium. Three grains of the salt were dissolved in six ozs. of cherry-laurel water, and half a drachm of laudanum added; a table-spoonful every three hours. In the evening the symptoms were already much relieved, the expectoration less, and more easy, and the pulse reduced to 90 beats. Occasional delirium occurred; but having observed frequently, in many formidable cases, that this symptom appeared on the supervention of a critical change, I was rather pleased than distressed at its occurrence.

17th. Amendment has gone on progressively; delirium less frequent and continued—pectoral symptoms much more easy—breathing almost natural—pulse 75—skin perspiring comfortably.

The medicine being now discontinued for two days, a relapse of all the distress returned, cough, dyspnœa, difficult expectoration, and great anxiety; fortunately, by immediately resuming the medicine as before, the symptoms were once more subdued, and the cure was completed under the use of a jelly, prepared of lichen and the polygala amara.

*Case* 5. A woman, aged 58, had laboured under an inflammatory affection of the chest for eight days, when Dr. R. was summoned to her assistance. She had alternate chills and heats, pain in the side, short distressing cough, very scanty expectoration, and great anxiety. The pulse was 80, soft and weak. The pain and feverish symptoms were relieved by bleeding and the use of digitalis, with nitre. On the following day there was a return of her distress, and recourse was, therefore, had again to bloodletting; the blood at both times was strongly buffed. But although the stitch in the side was assuaged, the general condition of the patient was decidedly worse. She could not lie down, but was obliged to sit up constantly; the cough was exceedingly distressing, and the anxiety much aggravated; she occasionally rambled in her talk; the pulse was 100, soft, pappy, and intermitting, and the general strength very low. She was now ordered a table-spoonful of the following mixture every four hours.

℞. Extract. digitalis purpur, gr. iv.
Aquæ cerasi nigri..... unc. ij.
Plumbi acetatis..... gr. j.
Laudani liq. sed..... gtt. xv.
M.

Next (18th) morning, a decided amendment; the dyspnœa and cough less frequent; expectoration had commenced; some sleep during the night. The medicine to be continued, and veal broth to be allowed. From this time she gradually recovered her health.

*Case* 6. A thin debilitated man, who had suffered repeatedly from attacks of pulmonary catarrh, was labouring under severe harassing cough, attended with a copious muco-purulent expectoration, when he applied to Dr. R. The mixture, with digitalis, sugar of lead, and opium, was immediately ordered for him; and in the course of five or six days, he had nearly quite recovered.

*Case* 7. A woman, aged 32, after exposure to cold, was seized with violent pneumonic symptoms, to which were added repeated attacks of severe cardialgia. She was five months gone with child. She was bled largely, and treated with small doses of tartar emetic and nitre. The pectoral distress was somewhat alleviated, but that of the stomach much increased by the remedies; and, as the pregnancy was deemed a proper objection to very copious bleedings, the mixture, consisting of three grains of acetate of lead in six ozs. of infusion of digitalis, was ordered for her, in doses of a table-spoonful every four hours.

After the third dose, the dyspnœa was decidedly relieved—the pulse less frequent, but the cough still very troublesome. The cardialgia had not returned; the expectoration, which hitherto had been "cruentus croceus," was more of the character to which the epithet "coctus" is applied.

Although there was a relapse of the severe symptoms, which required a small venesection, and an increase of the doses of the mixture; and although

abortion came on a few days afterwards, the patient progressively improved; the expectoration had become easy and moderately copious, the pulse soft, and the general pyrexia much abated. A miliary, or apthous eruption had appeared on the hips, and in the mouth and fauces; but this also gradually vanished.

A febrile reaction threatened to set in on the following week; but its advance was checked by repeated doses of the liquor kali acet. in bitter almond emulsion, and by six grains of Dover's powder at bed-time. In the course of a short time she became, (to use the German expression,) kernel-sound, sound to the very bone and marrow.

*Case* 8. T. P. aged 40, was seized on the 22d Nov. with alternate heats and chills, with severe pain in the side, increased by full inspiration, and with a strangling cough, which returned frequently in paroxysms of great violence; these paroxysms often lasting for a quarter of an hour at a time. The patient could lie only upon his back, and even in that posture was continually panting for breath. He was immediately bled from the arm, and a refrigerant nauseating mixture, with small doses of calomel, given frequently.

Under this treatment he went on improving, till the morning of the 24th, when he was found considerably worse; intolerable wandering pain, like the stabs of a knife through the chest,—cough harsh and very severe—skin parched, and occasional delirium. A blister was applied to the chest, and a mixture with camphor, opium, and nitre, ordered to be given every second hour. Although some relief was obtained from these means, the pneumonic symptoms were not satisfactorily subdued, till recourse was had to the acetas plumbi, with opium.

About a dozen other cases, similar in most respects to those which we have detailed, are brought forward by our author to confirm the good opinion which he has formed of the effects of lead, opium, and digitalis combined, in inflammatory affections of the lungs.

Few English readers will be inclined to be of as great faith as their German brother; still we must fairly admit, that as the sugar of lead is undeniably known to possess very considerable sanative powers in hæmoptysis, it is but probable that in pneumonia, bronchitis, and hectic irritation, it may have a certain range of efficacy.

Our author informs us that he is disposed to believe, that the remedy exerts its influence chiefly on the smaller and capillary vessels; and he therefore always premises bleeding and other depletory measures, in order that the morbidly increased action of the heart and larger arteries may be considerably reduced. He has derived very pleasing results from its administration in all cases where the quantity of sputa is very large; it seems to exert a direct astringent power on the mucous membrane of the bronchi.

In asthma it has been also of great service, by relieving the distressing dyspnœa, and in facilitating the critical discharge from the lungs. A case of severe chronic cystitis is mentioned, where exceedingly good effects were obtained from its employment, after the ordinary treatment had utterly failed. Reasoning from analogy, he is led to anticipate the same advantages in sanguineous apoplexy, which is, in an especial manner, a disease of the arterial red blood capillaries. When there is tendency to serous effusion, either in the brain, or into the substance of the lungs, the remedy is not to be employed; it is the "plastic," and not the "exhaling," action of the vessels, or to borrow the German phrase, it is the "hypercrystallizatio animalis" which is under the control of lead.

[The late Dr. Rush, of Philadelphia, highly praised the use of acetas plumbi in menorrhagia, threatened abortion, &c. &c.]—*Rust's Magazin für die gesammte Heilkunde.*

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## II. RE-VACCINATION IN THE PRUSSIAN ARMIES.

About two years ago, a very alarming epidemic of genuine small-pox appeared in different parts of Germany, and

threatened to commit great devastation both in civil and in military life. Several regiments lost a number of men, and it was observed, that the disease affected chiefly the young soldiers and recruits who were at and between the years of 18 and 24.

It was therefore an object of army-policy to investigate the history of this epidemic with all possible attention and accuracy, and to endeavour to devise some means for the extirpation, and subsequent prevention of this desolating scourge, which, if not arrested, might often paralyse the very sinews of war.

The military physicians recommended that a general re-vaccination of all the recruits should be forthwith instituted, whether the marks of a previous vaccination were found on their arms, or not. The government, ever attentive to the welfare and efficiency of our armies, promptly acted upon the advice of the medical board. In 1831, when the small pox epidemic broke out at Erfurt, two regiments of the 3d division were stationed there: 6020 in all were vaccinated at that time; and out of that number 2354, or more than a third, exhibited genuine cowpox vesicles.

In the 8th division, 2784 were vaccinated; and of these, 925 proved to be quite susceptible to the virus.

During the following year, nearly a somewhat higher proportion was obtained; in one division, 1594 out of 3942, and in another, so many as 2535, out of 3234.

Now, all must agree, that those individuals, in whom the operation succeeded, were truly susceptible of the contagion of small pox; the capability of receiving one poison being coincident with, and indicative of receiving the other; at least such is the prevailing opinion; and until it be contradicted by facts, it is a safe and feasible one. How great must therefore be the danger of such a fatal scourge as small-pox invading our armies, especially when regiments are crowded together in a narrow space, as is often the case during war!

Fortunately we have already proof that a preservative means, when properly and assiduously employed, exists in our own hands; at Erfurt it was found that not one of the re-vaccinated soldiers was seized with the contagion during the prevalence of the disease in that place.

We need no farther proof of the utility of the official order.—*Ibid.*

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### III. CASE OF SUDDEN DEATH FROM ASPHYXIA DURING INTOXICATION.

A young beggar-woman went into a public-house to buy tobacco. There were two men sitting in the room, drinking brandy. They gave her a glassful, which she forthwith swallowed, and asked for more. She drank eleven in succession, and being now intoxicated, she hobbled into the street, and there fell down quite insensible. In this state her neighbors carried her home, and laid her on the floor. She now vomited several times, but did not recover her consciousness; and about midnight, nine hours after the debauchery, she died. It appears that no regular medical assistance was procured for her; various means were used by the attendants, and among the rest, the liquor of pickled cabbages, and the water of a "fosse d'aisance."* The authorities of the place ordered, that a diligent investigation of the case be immediately instituted. On examining the corpse, it was found to be that of a healthy young woman, apparently about 23, or 24 years of age. The mouth was crammed full with lentils.

*Dissection.* In the larynx, just beneath the rima glottidis, ten or twelve lentils lay, and on opening the trachea

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* To form an idea of the popular domestic medicine of this district of Germany [Merzig] we may state, that it is a common practice to collect the dried excrement of dogs, and steep it in brandy;—this is a sovereign elixir for diseases. Dr. Chevalier mentions the case of a woman who was suffering from hæmorrhagia uteri, and to whom her nurse recommended some of her own vaginal discharge, as an effectual restorative. O mores Germanici!!!

many more were found, mixed with a frothy discoloured fluid. The right bronchus, where it sinks into the substance of the lungs, was completely stopped up with them; in the left bronchus there were none at all. The right lung was of an unusually dark colour, and much black blood escaped from incisions into its substance—a few of the lentils had found their way into the small air tubes. The left lung was more healthy, although two or three lentils were found also in its substance. The heart and large vessels were normal in structure; but the blood was thinner than after a natural death, and its colour was rather blueish-black, or inky, than of the venous hue. The stomach was filled with lentil-pap, and there was a strong odour of brandy—the mucous coat was streaked with dark lines, and marbled here and there with red spots,—the intestines and other viscera were moderately healthy. The encephalon was then attentively examined; but no abnormal appearance was detected.

The questions for enquiry now were, whether the death of this poor woman was solely and directly attributable to the quantity of brandy given to her; whether the filthy remedies administered, had any effect; or lastly whether the cause of death must be sought elsewhere, viz. in the obstruction of the air passages from the accumulated lentils. If the last-mentioned cause be admitted to be the true one (and medical men must be unanimous on this score,) then we have to determine in what manner, had the lentils most probably been introduced into the larynx and trachea. To explain this, we have only to remember that the unfortunate woman had vomited or attempted to vomit repeatedly, during her excessive intoxication; part therefore of the egesta probably remained in the mouth and fauces, and upon the next violent inspiration, were sucked forcibly into the air tubes, which, as well as other organs had lost much of their irritability in the general coma: the horizontal position on her back, while it added to the difficulty of expelling the food from the mouth, favoured the resorption of it into the trachea. Such appears to us to be the legitimate conclusion, both from the testimony of the witnesses, and from the appearances found on dissection; that the immediate and direct cause of death in this case, was the plugging up of a considerable portion of the air passages, by the introduced lentils, and that the more remote and original cause was the stupefying action of the brandy, which not only induced the vomiting, but at the same time rendered this act dangerous, and in the present instance, fatal.

To determine the criminality of those who wilfully intoxicate others, belongs not to the physician, but to the judge. *Rust's Magazin.*

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## IV. Experiments on the Medicinal Operation of Whey in some Chronic Diseases, and especially Phthisis Pulmonalis.

Dr. Kraemer of Munich, has communicated the results of his experience, during a period of nine years, in upwards of 500 cases of disease. He, like several other German physicians of late, has instituted an establishment for the reception of such patients, as may be considered to require the whey-regimen. The locality of this establishment is in a valley, partially surrounded by an Alpine wall; it is considerably elevated, being 2911 feet above the level of the sea; the air is cool, pure, and invigorating. The average temperature is not stated; but we are told that the heat during Summer is high, and that even in Winter, the cold is never very great. Dr. K. alludes to the importance of the freedom from dusty roads, and a loaded smoky atmosphere.

The almost instantaneous change in the feelings of the patient, who has left a crowded town for the unadulterated bracing air of the country, is frequently too obvious, to be gainsayed by any one. He breathes more lightly and easily; his night perspirations are diminished, and his appetite generally improves. True it is, that our hopes

of such pleasing results depend on the nature and degree of the malady; for whenever there is a strong tendency to inflammatory attacks on the bronchi, or when the last, or colliquative stage of phthisis exists, the change of residence may be positively injurious, unless very special care and prudence be exercised. The same fears need not be entertained, when the lungs are sound, and the seat of the disease be in some other organ, as the liver, mesenteric glands, kidneys, &c. &c., even when the disease is accompanied with frequent congestive, sub-inflammatory relapses, or has already advanced to suppuration.

The whey that Dr. K. particularly recommends is that from goat's milk; it contains a large quantity of saccharine matter; nearly 5-8ths of all the solid contents yielded by evaporation—it has a fine flavour, which is derived from the aromatic pasturage of the adjacent mountains:—we thus procure a pure and grateful beverage from the hands, as it were, of Nature herself; impregnated with its own organic life, like the waters of a mineral spring; and free from the vile stuff of artificial composition! It appears however that the qualities of the goat's whey brought from different parts of a country, are by no means the same; the milk is much influenced by the character of the pasturage; and hence the importance of having an abundant supply in the neighbourhood of the convalescent asylum. The time at which the whey is to be drank is very early in the morning; the patient should begin with one glassful, or rather more than half a pint; and increase the quantity, to six, or eight glassfuls.

The good effects are speedily obvious; the cutaneous and urinary discharges become increased in quantity; the bowels act more freely and regularly; the juices of the body are cooler and more bland than before, and a certain degree of gently invigorating impulse is given to the whole system. The speedy action of the whey regimen on the secretions and excretions is only apparent, when the quantity taken is considerable, and at moderately short intervals;* when taken more sparingly, it seems to pass chiefly into the nutritive function. The quantity of perspiration is sometimes so greatly increased, that the patient is obliged to change his linen once, or twice during the day; the laxative effects of the whey vary exceedingly in different individuals, some being purged, and others scarcely affected by it; occasionally, but this is rare, it seems to have even a constipating effect; in such cases a regular action of the bowels must be solicited by the electuarium sennæ, the potass. supertartras, or by small doses of Epsom salts:—these mild remedies diminish the abdominal plethora and the congestive state of viscera, which so often give rise to costiveness.

Some physicians have recommended as an aperient, the whey prepared with tamarinds, or wine-vinegar; but Dr. Kraemer very justly states, that the beverage thus made much less palatable, and that thereby the patients cannot be induced to take a sufficient quantity for the requisite time; it is much better to attain our object by the use of mild laxatives, and give the whey in its simple unadulterated state. This is especially necessary to be attended to, in all consumptive cases, and in those connected with any congestive state of the abdominal viscera. With this precaution, Dr. K. assures us that whey is by far the most safe, as well as the most efficacious article of food, for removing all acrid inflammatory states of the blood, rendering it mild and sanative to the system, and yet affording a sufficient supply of nourishment for the support of the system; and a strong argument in its favour, is, that during its employment, we may have recourse to any remedial means, with the sure confidence that their effects will not be baffled by the dietetic regimen. How often do medical men neglect this important caution in the treatment of

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* In leucorrhœa, chronic obstinate gleets, catarrh of the bladder, &c. its diuretic properties are usually well marked, and very beneficial.

chronic diseases, and especially of those of the pulmonary organs; while they are exhibiting all sorts of anodynes and antiphlogistic medicines, the patient is permitted to have a free unrestricted allowance of animal, and other heating food!! Can we hope to quiet the boiling wave, with a few drops of oil sprinkled on its surface, while all the time, the wind is heaving it into commotion? and yet the conduct of many physicians is as absurd. Perhaps they will tell us, that they have no expectation of the ultimate cure of the phthisical patient, and that therefore, it is scarcely necessary to deprive him of any thing, which he may desire; their reasoning is fallacious, and is certainly quite contradicted by our experience; for although we admit, that few, or no cases of genuine confirmed tubercula consumption admit of cure, it does not follow, that we cannot assuage the suffering, and slacken, if not arrest the progress of the disease.

Numerous cases have been brought to our institution, in which we at once declared the impossibility of a cure; and yet during their residence there, and the steady employment of the whey diet, every distressing symptom was relieved, except the cough and emaciation; the breathing had become easier, the night sweats had gone, the diarrhœa ceased, and the feverish irritability soothed, as by a charm.

This surely is a something of no trifling importance, which has been gained. We are therefore justified in asserting that even these incurable cases afford a strong proof of the admirable effects of the regimen, and afford a hope, which alas is a feeble one, that if ever a means of repairing the changes of the suffering organ be at any future time discovered, we have it in our power to assist and promote its operation, in a simple, safe, and efficacious manner. The following catalogue exhibits the chief diseases in which the whey diet has hitherto been found most useful. 1. All cases of hectic irritation. 2. Phthisical or atrophial wasting; whatever be the organ morbidly affected. 3. Diseases of the heart and of the head. 4. Obstinate chronic affections of the bowels and other abdominal viscera.* 5. Scrofula, rachitis, and all indurations of the glandular system. 6. Intractable cutaneous diseases and gout. 7. All nervous diseases, especially when attended with excitement. 8. Diseases of any of the uro-poietic organs.

It is scarcely necessary to state, that if the whey-regimen be useful in the above actually existing diseases, its sanative powers are infinitely more conspicuous against the predisposing and fore-running conditions of the system. How many a patient might be saved by a timely resort to its steady use? Dr. K. strongly recommends that, along with the prescribed diet, a tepid bath should be employed once or twice a week, and a light vegetable bitter taken daily. The formula for the preparation of his favourite tonic is thus:—take equal parts of the strained juices of the Veronica Beccabunga, Sysimbrium Nasturtium, Menyanthes Trifoliata, and of the Leontodon Taraxacum, and mix them together. The dose is from one to three ounces in the course of the twenty-four hours. The herbs are to be collected fresh, and a supply of the juices prepared daily. Such is the sum and substance of Dr. K.'s treatment. We must not however forget to remember the powerfully adjuvant influences of a quiet and cheerful residence, of a pure bracing Alpine air, and of regular clock-work habits.

He very candidly admits, that some of the patients who have already reached the second stage of consumption, are made worse by the change from their accustomed abodes to his institution, and very properly attributes the injury to the too keen and penetrating atmosphere of an elevated situation. The medical attendant must therefore exercise a prudent discrimination in the selection of the cases, which are suited to the change: nothing can be more injudicious than the practice which hitherto has been unfortunately prevalent, of sending the unfortunate sufferers abroad, when all hopes of saving them

* In cases of severe hæmorrhoids it is singularly beneficial.

in their own country had vanished. In concluding his remarks on phthisis pulmonalis, the author alludes to the occasional good which some patients derive from the inhalation of emollient and sedative vapours.—*Hufeland's Journal.*

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V. ENORMOUS STEATOMATOUS ENLARGEMENT OF THE UTERUS—UTERUS WEIGHING 21 POUNDS.

A woman, aged 34, soon after her confinement with a first child, observed a swelling of the hypogastrium, attended with occasional pain, and with complete amenorrhœa.

The swelling continued to increase for six years, during which the catamenia were not seen; she supposed at first that she was pregnant; but she soon found it otherwise. Upon examining the abdomen, the tumour felt unequal and knotty on its surface, and it was painful when pressed with the finger; there was no symptom of tympanitis, or of ascites present; the os uteri was found per vaginum to be round, and but little open; the body of the organ was indurated and weighty. Every four weeks the abdomen was puffed up more than at other times, and a mucous discharge escaped from the vagina. Her health became worse and worse, and she lingered out a miserable life of pain for eleven years. Shortly before her death a distinct fluctuation was felt under the skin of the hypogastrium; a trocar was pushed in, and a large quantity of bloody serum flowed out.

*Dissection.*—Upon turning back the omentum, an enormously enlarged uterus came into view; when separated from its connexions, it weighed 21 lbs. [civil weight.] The anterior surface of the organ was studded with upwards of twenty fatty growths, some small, but others as large as a man's fist. They were covered with the peritoneal coat of the uterus; when cut open they presented a beautifully smooth fatty appearance, like that of the finest tallow. The posterior surface was of a white colour; and when the substance was divided, it was found to be firm in texture, and about an inch thick in every part. The cavity of the uterus was filled with a brown-coloured substance, of a confused fibrous texture; its orifice was round and but little open, and a gelatinous mucus flowed from it; the ovaria were indurated; the other viscera were sufficiently normal in structure, although somewhat displaced by the enlarged womb.—*Graefe and Walther's Journal.*

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VI. ABNORMAL FLEXURE OF THE COLON.—DEATH.

A young lady, aged 19, had for several months suffered from repeated and very severe attacks of spasmodic pain the bowels, accompanied with most obstinate costiveness. Her health gradually pined away, and at length she was confined constantly to her bed; the slightest motion, and even any sudden noise, caused burning and stabbing pains in the epigastrium, which sometimes lasted for several days at a time; the abdomen was neither hard, nor was it painful on pressure, unless this was forcible.

The alvine evacuations took place only every tenth or twelfth day, and then dreadful torments were always induced; no purgative remedy was of any avail. Her medical attendant subjected her to a course of animal magnetism for four months; her sufferings, we are told, were soothed, but her "flying life was not arrested"!!

*Dissection.* Upon opening the abdomen, no viscus was seen but the great gut; it was greatly enlarged in size, and when traced, it exhibited three distinct curvatures in the following way; the right, or beginning portion of the colon, having first mounted upwards, dipped down into the pelvis behind the uterus; it then took a bend, and rose towards the left lumbar region, and again descended, as the colon descends, to terminate in the rectum. A quantity of hardened scybalous fæces was found in different parts of the bowel, and also in the rectum, which though not quite normal, was not much

affected. The other viscera were tolerably healthy.

No probable cause could be assigned for this curious malformation of the colon.—*Ibid.*

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VII. UPON A CURIOUS SORT OF INFLAMMATION OF THE OUTER EAR, OCCURRING IN INSANE PATIENTS.

This rather uncommon affection does not appear to have been noticed by authors, and yet six cases have lately come under the notice of Dr. Bird; they all occurred in men. The ear becomes hot, red, or blueish, shining, and painful: the swelling is variable—sometimes it is very rapid in its progress—at other times it is much more slow and tedious; the parts most affected are generally the cavitas innominata, scapha, and anti-helix; the helix is less so, while the concha, tragus, antitragus, and lobules are usually exempt.

The swelling continuing to increase, at length assumes the appearance, as if the half of an egg, sliced through longitudinally, was clapped upon the ear, and there stuck; in time it becomes so considerable, that it completely hides the concha, and even the incisura helicis. The dorsum auriculæ is but little affected; the ear projects forward, standing out from the side of the head, which adds to the unseemliness of the poor patient. From the commencement of the inflammatory process until the swelling loses its heat and painfulness, the period is three, four, or more weeks; its colour becomes now of a darker red, or of a purplish cast; the skin breaks in several fissures, and from these a yellowish serum exudes; after another week or so the tumour breaks at the top, and discharges a matter like black curdled blood; this discharge continues for a short time, and the swelling gradually goes down, exposing the tragus, antitragus, and concha, which hitherto had been quite concealed by the overhanging mass, but which had not partaken of its character;—the blue colour slowly disappears, and at length gives place to a more than usually natural whiteness; the affected part of the ear remains, in some cases, thickened, and somewhat hardened; occasionally it shrinks together, obliterating the cavitas innominata, scapha, and the anti-helix, and altogether disfiguring the organ. One or both ears simultaneously may be affected. With regard to the exciting cause of this curious affection, Dr. Bird is at a loss to account for it. He has never been able to trace it to any outward injury; and, indeed, the peculiar appearances which it presents are very different from those of an ordinary bruise.

In five out of the six patients, there were symptoms of active congestion within the head, the carotids beat violently, the scalp felt hot, and the meninges of the brain were probably inflamed; every symptom indicated great arterial fulness. It is probable, therefore, that the minute and delicate vessels of the outer ear may partake of the general plethora and increased action, and these would no doubt be increased by any outward injury, or even by frequently rubbing the organ, to allay the itching heat.

There is nothing peculiar in the treatment of such cases.—*Graefe's Journ.*

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VIII. THE VAPOUR-CAVE AT PYRMONT, SIMILAR TO THE GROTTO DEL CANE AT NAPLES.

This cave is situated at a distance of about 800 feet from the well-known mineral spring of the same name. It is not a natural formation, but was hollowed out and fitted up, in the year 1720, by Dr. Seip, whose attention was drawn to the place by the quantity of suffocating vapour exhaled from the fissures of the rock. Similar streams of gas issue from many places in the immediate neighbourhood of the cave, and from the mineral waters themselves, giving them a sparkling and effervescing quality. The geological characters of the ground are, that it belongs to the variegated sandstone formation, and that it consists of marle and ferruginous sandstone. The stream of gas is constant, but the quantity issuing varies much at different times;

so that the height of the gaseous layer above the surface may be from one to eight, or even twelve feet. It is generally highest soon after sunrise and sunset in clear warm weather, or at the approach of a storm—also during a hoar frost in Winter, during which the vapour atmosphere has stood so high over the mouth of the mineral springs, that children, and even adults, have fallen down asphyxiated while attempting to draw the water.

The gas is sour to the taste, and has a suffocative smell; the relative quantities of the carbonic acid and of common air vary, according to the level from the ground at which we collect the gas; at the bottom, it consists of 48 parts of pure carbonic acid, and of 52 of air—at three feet, the proportion of the former was only 36½; there is no admixture of any sulphureous gas. With regard to the effects which it produces upon animal life, we may state generally that it is a very exciting, momentarily-irritating, heating, and antiseptic agent; a pleasant tingling warmth is experienced in the limbs; if the person stoops down, he is soon sensible of the sourish taste, and of a pricking in his eyes and nose; he becomes oppressed and dizzy, his breathing is laborious, and the pulse is much quickened; these symptoms become gradually more and more aggravated, until complete asphyxia be induced.

The poisonous force of the Pyrmont Cave is, however, much inferior to that of the Grotto del Cane, or of the "Poison Valley" of Java, although the agent of destruction be the same in all, varying only in the relative proportion of its quantity. When the carbonic acid gas is nearly pure, or much exceeds that of the combined atmospheric air, it produces, if inspired, a spasm of the rima glottidis, and thus the entrance of the air is quite stopped up, and speedy death necessarily ensues. Such phenomena have been observed in animals taken into the Dog Grotto and the Poison Valley. The following experiments were made at the Pyrmont Cave.

*Exp.* 1. A rabbit was introduced. In 50 seconds it became convulsed; in a minute and a half it lay motionless, and as if dead. Being now taken into the fresh air it soon revived, and in the course of a minute or two had quite recovered itself.

*Exp.* 2. A two-years dog was next exposed. The breathing became laborious immediately; it tottered on its feet, and after a minute fell down, convulsed in its head and extremities—the lips, tongue, gums, and palate were purplish—the eyes open—the pupils dilated. The twitches of the legs became more and more feeble, the breathing shorter and more rapid, and soon altogether abdominal. After four minutes and a quarter, the dog was taken into the open air, and within two minutes had nearly recovered. This dog was afterwards again exposed to the vapour, and kept in it for 31 minutes; it was then taken out, and sprinkled with water and rubbed. In seven minutes it was again revived.

*Exp.* 3. A moderate-sized cat, after four minutes' immersion in the vapour, was taken out; it revived in two minutes. Being again exposed for 15 minutes, it was found to be quite dead.

*Exp.* 4 A six-years old shepherd's dog was then confined in the vapour. After being an hour and seven minutes there, the irritability of the wide-opened eye was altogether extinguished; but the breathing was still perceptible, by a feeble intermittent motion of the under jaw:—it became gradually weaker and weaker, but did not cease altogether until nearly three hours from the beginning of the experiment had elapsed.

It thus appears that the vapour of the Pyrmont Cave is only slowly fatal to animals of moderate bulk; the death induced by breathing carbonic acid seems to be not a painful one; a stupefaction speedily follows a short-lived excitement. Those who have willingly exposed themselves for a few minutes to its influence, state that they might have died in the most tranquil manner, had they not been soon removed from the narcotic atmosphere.

The comparative destructiveness of this cave and of the Grotto del Cane is well seen by the following table:—A dog was killed at the former in 2 hours and 52 minutes—at the latter in 2 minutes. A cat was killed at the former in 15¼ minutes—at the latter in 1¾ minute. A hen was killed at the former in 2¾ minutes—at the latter in 1¼ minute.

In consequence of the suggestion of Baron Graefe, a vapour-bath has been established, during the present year, at the Pyrmont Cave, and very considerable advantages are expected from its regulated use. When the vapour is still further diluted with atmospheric air, it may be employed with much service in phthisis, attended with mucopurulent sputa. Confined in contact with the skin, it is useful in removing paralytic weakness, and rheumatic or gouty pains; the perspiration is encouraged, and the cutis acts more healthfully. On a somewhat similar principle, sterility, amenorrhœa, leucorrhœa, &c. may be benefitted by its use—also deafness, weak vision, obstinate coryza, and debility or cramps of any of the sensual organs.—*Graefe and Walther's Journal.*

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## IX. DESCRIPTION OF A NEW LITHOTOME.

[Litotomo, et Processo di Litotomia di dottore Francesco Gattei. Pesaro, 1832.]

The instrument consists of two parts, one of which is an ordinary staff, having a rather large solid handle of wood. In this handle, on its outer (*i. e.* corresponding with the convexity of the staff) side, there is a slit or groove, running somewhat obliquely from its extremity, down half its length; it inclines a little to the left side, and is deep above, becoming shallower as it descends. Where it ends, there is placed a screw, which is provided with a longitudinally-cleft or forked handle, to admit the point of the thumb to rest upon it.

The other part of the instrument is the cystotome, or gutting gorget. It is nearly as long, and somewhat of the same shape, as the staff; on its upper extremity there is a pin, which stands out from the back edge, so as to prevent the instrument from passing beyond the fork of the screw, and about three inches or so from its cutting extremity, there is a ring set upon the same edge, to admit the finger.

When it is used, the staff is to be introduced as usual into the bladder, and the external incisions to be made as in the lateral operation; the surgeon now feels for the groove of the instrument, and cuts upon it with the cystotome; when this is fairly admitted into the groove, he then introduces the other extremity of the cystotome between the two laminæ of the forked handle, and it is to be confined in this place by the thumb of the left hand, which grasps the handle of the staff. The fore-finger of the right hand is now to be inserted through the ring mentioned before; and while the handle of the staff, which hitherto had been resting upon the symphisis pubis, is brought down to the inner side of the thigh with the left hand, the cystotome is to be pushed on along the groove into the bladder, with the right one; the cutting blade cannot escape from the groove, as its upper or handle extremity is confined between the blades of the fork, and it is prevented from being plunged too deep, so as to perforate the bladder, or injure other parts within the pelvis, by the pin pitting against the forks, and by the cutting point of the cystotome being met by the knob at the end of the groove of the staff. If the section of the bladder is found, upon withdrawing the instruments, to be inefficient, it may be easily enlarged with a common scalpel; the operator is placed in the most favourable situation to adapt its extent to the special circumstances of the case. The great advantages of this lithotome are, that by means of it a clean and moderate-sized incision may be always made, with no injury either to the rectum or adjacent parts. Subsequent experience must determine its utility. No cases, wherein the operation was performed on the living body, are adduced by Dr. Gattei.

**Extracts from German Journals.**

X. CONTINUANCE OF LIFE IN A NEW-BORN INFANT, IN WHICH THE BRAIN HAD BEEN DESTROYED BY CRANIOTOMY.

The mother had been delivered by the operation of embryulsion, two years before; the conjugate diameter of the pelvis being only 2½ inches. The head having been perforated with the scissors, the two parietal bones were extracted, and the whole of the encephalon removed; the child was easily brought down and drawn out with the fingers. While the accoucheur was engaged with his patient, and awaiting the expulsion of the placenta, he was surprised to hear a whining noise proceed from the child, which had been wrapped up in a napkin, and laid aside in a corner of the room. At first he thought that it must be a mistake on his part, and paid no attention to it; but in two or three minutes the sound was repeated; and now upon opening the towel, he found that the mutilated child breathed feebly, and even moved its hands and feet; and once more gave out a whimpering cry. These phenomena were observed for a few minutes, and then ceased altogether.—*Hufeland's Journal.*

[Let our readers consult the review of Dr. Kennedy's work in our present number.—ED.

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XI. OCCASIONAL THICKNESS OF THE SAC IN FEMORAL HERNIA.

In a case lately operated upon by Dr. Angenstein, of Cologne, and reported in Rust's Magazine for January, 1833, the herniary sac was several lines in thickness, tough, and of a cartilaginous texture, and this character of the protruded peritoneum extended fairly within the crural aperture.

The surgeon, aware of the extreme rarity of such an occurrence, examined it most attentively, in order that he might be satisfied that it was the sac alone.

He deemed it proper to excise a considerable portion of it. The patient was a female, 52 years of age, of an exceedingly gouty constitution, and several arthritic tumours were scattered upon different parts of the body, behind the ears, on the sternum, &c.

Dr. A. attributes the thickened state of the body to an unusual tendency in the system to a deposition of matter. It is, however, right to mention that the hernia had existed 15 years, but had never been incarcerated.—*Rust's Mag.*

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XII. TREATMENT OF VENEREAL CONDYLOMATA.

As a matter of course, the removal of these very troublesome excrescences must be varied according to their character and situation. When they are pediculated, or even considerably projecting above the level of the surrounding parts, by far the most expeditious, and at the same time, a very safe method of treatment, is excision with the knife or scissors. If our patient be alarmed at all cutting instruments, the ligature affords a sufficiently convenient substitute. But not unfrequently they are too flat and expanded for the employment of either mode. In such cases Plenk's lotion is one of the very best applications we can use.

℞. Hydrarg. muriat. corros. ʒj.
Camphoræ, ʒss.
Alcoholis, ʒj.

It is to be applied with a camel-hair pencil, once or twice a day.—*Ibid.*

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XIII. FACIAL HEMIPLEGIA—EXTERNAL USE OF PHOSPHORUS.

The symptoms of this local palsy are well known; the mouth is drawn to the sound side, the eye is half-closed and weeping; the point of the nose is sometimes distorted, and the patient is often utterly incapable of moving the forehead, eyelids, and nostrils of the affected side; the motion of the eyeball, however, remains perfect; and the saliva usually flows more profusely than in health; but part of the food, especially if it be liquid, is apt to escape

from one corner of the mouth. The temperature of the palsied parts is often lower than that of the other half of the face. The general health may be quite unimpaired. This hemiprosopoplegia may happen at any period of life; but in childhood it is very rare. The following treatment was successful in three cases.

℞. Phosphori, gr. vj.
Olei animalis æther, ʒiij. M.

The palsied parts are to be rubbed with this embrocation three or four times daily. After it has been used for a day or two, several places become sore, and then form scabs or crusts, which gradually dry and fall off. The rubbing must be renewed a second time when the skin recovers its soundness; and in severe cases the operation requires a third repetition. Generally after the first desiccation, the parts are found to have regained a slight power of motion, which increases more and more after the second and third rubbings. The use of the liniment causes very considerable pain, and a feeling of burning; but no evil effect has ever resulted from it.—*Hufeland's Journ.*

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### XIV. Use of Iodine against Salivation.

Every medical man knows well how difficult, and yet how desirable a thing it is, to check a profuse salivation, whether it has been induced by mercury or not. Hufeland informs us that in iodine we possess the wished-for means. In seventeen cases it was employed with striking benefit; the severe smarting, the tumefaction of the glands about the mouth, and the profuse flow of spittle ceased after three or four days use of it; and the mercurial sores often healed up at the same time.

The dose usually given at first, was two grains in the course of the day; and it was increased to four grains, in the following formula.

℞. Iodini, gr. v., solve in
Spir. Vini, ʒij.
Aquæ Cinnamomi, ʒijss.
Syrupi. ʒss., M.

Half a table spoonful to be taken every six hours—the dose to be gradually increased.

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### XV. Poisoning from Eating the Capsules of the Hyosciamus Niger.

Two girls, each about five years of age, had been amusing themselves with the seed-vessels of this plant, which grew in abundance round their father's door, and no doubt had eaten some of them. Their parents soon observed a trembling of the limbs, a restlessness and confusedness in their speech and conduct, and a general oppression of the whole system. They were not aware of the true cause of these symptoms, and allowed the children to drink freely of milk. Dr. Burdach was called to them eight hours after they had eaten the pods. At that time he found them chattering incessantly, and without any meaning in their words; then they began to leap and dance, as in chorea, and all the time they seemed not to know any of their family. The hands, feet, and muscles of the face were every now and then twitched with convulsions; and so strongly did they struggle, that it was no easy task to restrain them, or to take away whatever they laid hold of; they bit and scratched and nipped every one who interfered with them. Sometimes they would grind their teeth, and push out their tongues, which were shaken to and fro with a trembling movement. If water was offered them, they drank freely and without any difficulty; but one of them always carried the jug upside down to her mouth. The eyes were sparkling, and constantly rolling about; the albugineæ were red, and the pupils so widely dilated, that the irides seemed like a narrow circle; they were also insensible to light. The pulse was small, hurried and indistinct.

An emetic mixture, containing the tartrate of antimony, was immediately given, and repeated until free vomiting was induced; a quantity of hyosciamus seeds were among the egesta. A table-spoonful of wine vinegar was then given at intervals; and strong coffee

allowed for drink. After this treatment had been continued for a short time, the symptoms began to abate, and the children recognised their parents. Milk and light farinaceous food were ordered. On the following day, they were both cheerful, and nearly quite well.

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## XVI. ENCYSTED HYDROPS OVARII—SPONTANEOUS CURE.

*Case* 1.—A young woman, 20 years of age, who had been married for three years, but had never been pregnant, applied to Mr. Burdach, in consequence of a large tumour in the left iliac region. She stated that soon after her marriage, she experienced smarting pains in that part, and since then, that the swelling had gradually developed itself, without causing much inconvenience.

One day, having exerted herself much to lift a heavy weight, she suddenly felt, as if something snapped and gave way in her belly; immediately a watery discharge flowed from the vagina, the tumor sunk down; and there has been no sign of its re-appearance, now for 18 months since the event happened. The woman's general health is good; but she has never yet been in the family-way.

*Case* 2. A case in many respects very similar to the preceding one, is detailed in the able memoir by Dr. Montgomery reviewed in our present number. A woman separated from her husband, became affected with what was considered ovarian dropsy, and which enlarged the abdomen to the size of a six months' pregnancy; some of the other symptoms of this state were likewise present. After an attack of inflammation, during which it may be presumed, that the parietes of the tumor formed an adhesion with the upper part of the vagina, there took place suddenly a discharge of gelatinous fluid from that cavity, and the abdomen completely subsided in the course of a day; the previously entertained suspicion appeared to us to be confirmed beyond a doubt.

*Case* 3. The life of an innocent young woman was once nearly sacrificed by an occurrence analogous to the preceding two cases.

She had a large swollen belly, as if she was several months gone with child; but this enlargement suddenly gave way to a profuse discharge of fœtid matter from the vagina.

Unfortunately for her, there were two foundlings, who had died from exposure, discovered about the same time; suspicions fell upon this woman, and she was actually condemned as the infanticide. By the humanity however of several surgeons and physicians, who accurately examined the case, she was afterwards acquitted, and liberated.—*Cyclopœdia of Pract. Med.*

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## XVII. LIGATURE OF THE SUBCLAVIAN ARTERY BELOW THE CLAVICLE.

A young man received a sword-thrust through the folds of the axilla, in a duel. The hæmorrhage was checked by compression, and in eight days the wound was nearly healed; but now unfortunately the bleeding returned, and although restrained for the time, broke out a-fresh at different intervals. Professor Blasius of Hallé determined therefore to tie the subclavian artery, below the clavicle. The operation was performed on the 20th day after the accident; and although no particular difficulty was experienced in any of the steps, the patient had been so exhausted by the repeated losses of blood, that he died on the 2nd day after. On dissection, the axillary artery and vein were found uninjured; the source of the bleeding had been from the circumflexa humeri posterior, and circumflexa scapulæ, the wound having penetrated from behind, through the tendon of the latissimus dorsi, upwards and forwards. The subclavian artery, at the point of the ligature, was well secured.

Dr. B. very correctly condemns in severe terms the early treatment of this case. Why was the artery not laid bare at once, and a thread passed round it? No time should be lost upon such an occasion; the delay of even six,

twelve or eighteen hours may be most injurious; for if an inflammatory action, nay an inflammatory tendency be established around the wounded vessel, the risk of secondary hæmorrhage is tenfold increased. Dr. B. was called one evening to a young man, who had wounded his hand deeply in the morning; a bungling surgeon who had seen the patient then, had crammed compresses and other trash into and upon the wound; a certain degree of inflammation had thereby already commenced, when Dr. B. applied the ligature; on the 4th day, the vessel had ulcerated; the bleeding returned; and a second operation was necessary. But should the wound heal partially at first, and the hæmorrhage not recur, till the 16th, 18th, or 20th after the accident, when suppuration had been established for some time, not only are the difficulties of securing the injured vessel greatly increased, but also, the chances of ulceration of its coats at the site of the ligature and consequent bleeding. The parts are much changed in their tissue, and are matted together, so that it is often not easy to distinguish between them; and moreover the artery is so glued to its sheath, &c. that it is scarcely possible to isolate it satisfactorily. Still, with all these disadvantages, the tying of the artery is much safer than the employment of any other styptic remedies; our prognosis however cannot be so favourable, as it would have been, after an early operation.—*Rust's Mag.*

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## XVII. CÆSARIAN OPERATION IN PARIS.

The woman was forty years of age; she had been eight times pregnant: the fifth and sixth pregnancies had terminated in abortions during the third month. In the remaining six she had been delivered by means either of the forceps, or of the crotchet; only two of the children had been born alive; one of them lived for eighteen months, and the other only for seventeen hours.

On the 3d of February last she was again taken in labour. M. Bello visited her, and on examination of the abdomen, found that the uterine tumor was so prominent and depending, that the umbilicus touched the thighs, when the patient was sitting; the integuments were exceedingly stretched and of a purple colour, in consequence of the congested state of the superficial veins. Although she was still in the eighth month of pregnancy, the regularity of the pains indicated sufficiently the near approach of accouchement.

A consultation was held, and it was determined that delivery should be accelerated, before the patient's strength became much reduced. It was first attempted to replace and retain the uterine tumor in its proper place, that its contractions might bring down the child within the pelvis, to permit the application of the forceps; but the excruciating pains she felt in the region of the kidneys and in the ulcerated abdominal parieties (for they had cracked in several places) whenever any attempt was made to raise the tumor utterly prevented this plan from being followed. On examination per vaginam, it was found that the outlet was sufficiently large in all its dimensions; but the neck of the womb could not be reached with the finger, and this was not wonderful, when the os uteri was actually higher than its fundus; to effect the delivery by turning, was therefore out of the question. It was resolved that the Cæsarian operation should be performed; and this was done on the forenoon of the following day by M. Baudelocque. A living child was extracted; but it survived only seventeen hours. The patient bore the operation, which did not exceed sixteen minutes, remarkably well; while the dressings were applied she fainted away; but this did not seem to arise from the loss of blood, so much as from the agitated feelings of her mind. Fifteen hours afterwards she was a corpse.

*Dissection eight hours after death.*—The abdominal parietes were found remarkably thin and wasted; the fibres of the recti muscles were scarcely recognisable, the muscles having been quite atrophied and reduced to mere cellular tissue. The pelvic and part of the abdominal cavity were filled with clots of blood, which has stained the peritoneum

of a purple colour. The cavity of the uterus also contained a good many clots; the incision had been made through its fundus and part of its posterior surface, for this surface had been the anterior one during life, and so completely had the womb been hanging out from the abdomen, that its anterior surface lay in front of the arch of the pubis. The urinary bladder was situated between the pubis and the vagina, which had been so much stretched, that the neck of the uterus covered the bladder.

The spinal column was quite normal, from the neck to the pelvis; but the angle formed by the lower lumbar vertebræ and the sacrum had become a right angle, so that, when the woman was in the sitting posture, she rested on the posterior surface of the sacrum, and not upon the sciatic tuberosities, for these were directed forwards and somewhat downwards. The effect of this must have been, that the trunk of the body was thrown much forwards and the shoulders backwards, and we can understand the reason of her constant position in bed, having the head and back supported with a number of pillows. The measurement of the pelvis were as follows;—the antero-posterior diameter, from the symphisis pubis to the base of the vertebral column, was four inches and eight lines*—the transverse was four inches and nine lines; the former, was, therefore, eight lines longer, and the latter three lines shorter, than in a well-formed female pelvis. The oblique diameters were each four inches and four lines, or two lines shorter than usual. Of the outlet, the anterio-posterior diameter, measured from the under surface of the symphisis pubis to the point of the sacrum, was four inches and two lines, and the transverse only two inches and nine lines, or an inch and a quarter shorter than it ought to have been.

The cause of the excessive protrusion of the gravid uterus was, no doubt, owing to the unusual prominence of the sacro-vertebral junction; and the repeated distention of the abdominal parietes, during so many former pregnancies, gradually so weakened them, that they could afford no support, but became extremely thin, and quite atrophied.

The reporter of the case, M. Bello, admits, that a child of eight months might have been brought through such a pelvis as this woman had, "per vias naturales," but that the existing circumstance at the time prevented the adoption of the plan. That the woman died of internal hæmorrhage is unquestionable; and, perhaps, the true reason of this accident was, that the incision was made through the fundus and back part of the uterus, where the placenta is usually attached.—[By the bye, how comes it that not a word has been mentioned about the expulsion or removal of the placenta? we are not told when or how it came away.] The same accident occurred to the late Mr. John Bell; but, in his case, the placenta was attached to the anterior surface of the uterus.—*Transactions Médicales.*

* It is afterwards stated that the vertebral column, joined on to the sacrum in the manner we have noticed above, was only two inches and a quarter distant from the symphisis pubis, and that the brim was divided into two unequal halves, of which the right was larger than the left.

## XIX. THE ARTIFICIAL PRODUCTION OF COW-POX.

In 1831, Dr. Sonderland, of Bremen, endeavoured to prove the identity of the variolous and vaccine poisons, and to point out a method of producing artificially on cows the vaccine pustules. He took the bed-linen of a patient labouring under the suppurative stage of small-pox, and which, therefore, was well impregnated with the active virus, and enveloped the bodies of some young cows with them for twenty-four hours; they were laid on the backs of the animals, and made fast round their legs. When removed, they were then hung up before their mangers, so that they were forced to inhale the infected atmosphere. In a few days, the cows became feverish, and on the teats and

other parts of body, where the skin is fine, numerous pustules, in every respect like to those of the natural cow-pox, and the matter of which, when inoculated, was found to communicate the disease as on ordinary occasions. If these statements be quite correct, the inferences from them are obvious, and exceedingly interesting; they would shew, that what have been hitherto considered two diseases, are essentially but two forms of one disease, modified by the different constitutions of man and of the cow; and they would explain why the cow-pox has of late years become less frequent in dairies, since the epidemics of small-pox have been in a great measure unknown, the chances of infection being less, equally to the beast and to mankind. Besides, an interesting field for observation and experiment would be opened up, to enquire whether any of the other contagious diseases can be communicated to the cow, or other tribes of domestic animals; and if so, what changes and modifications do they undergo?

M. Numann, director of the Military School at Utrecht, availed himself lately of an epizootic, which prevailed in the environs of that city, to repeat some of M. Sonderland's experiments — with what results we shall now explain.

A cow, four years old, was enveloped with the sheets which had covered a variolous patient from the beginning of the disease until the fourteenth day, when the suppurative stage was fully established. No change was found to have taken place till the sixth day, when he discovered three or four slightly elevated spots on one side—they were about the size of pepper-corns. On the eighth, ninth, and tenth days, a few more fresh papulæ were observed upon the back and haunches; they contained a little clear serosity on their summits, and this had all the appearances of ordinary vaccine virus. These vesicles gradually dried up, and were then covered with small crusts, which fell off in the course of a few days.

*Obs.* 2.—A young cow, two years old, was treated in a similar way. No particular change was noticed until the sixth day, when only one pustule could be discovered on the shaved portion of the back. On the following three days, two fresh papulæ appeared—they contained a little lymph, and then passed through the stages of desiccation and desquamation, as with the former cow. Probably one reason that the subject of this experiment shewed a less perfect eruption was, that it was kept all the time in the open field, and not taken into the cowhouse.

*Obs.* 3.—A milch cow, six years old, was enveloped with the same sheets, which had been used in the first experiment; this cow had, moreover, been vaccinated six or eight weeks previously with lymph, procured in the ordinary way. No febrile re-action, nor any appearance of papulæ or of vesicles, was observed; but whether the failure arose from the protection of the former vaccination, or whether the infected sheets, which had been used before, had lost too much of the virus, it would not be fair to decide from the result of a single experiment.

M. Numann was now anxious to ascertain, whether the lymph of the vesicles of the two first cows was capable of communicating genuine cow-pox to persons vaccinated with it. Three children, of eleven, seven, and four years of age were made the subjects of the experiment; the left arms were punctured in three places, and this new lymph inserted, and the same number of punctures were then made in the opposite arm, and ordinary vaccine matter introduced. On the third and fourth days following, the punctures on both arms were red, and nearly similar to each other. On the fifth, the punctures on the left arm of the eldest child were in the same condition; two only of the punctures on the left arms of the other two children were developed, the third puncture having been ineffectual.

On the 7th and 8th days, the irritation of the punctures on the left arms of all the children had passed away. The vaccination of the right arm was followed by two regular cow-pox vesi-

cles in two of the children, and by one in the third; these vesicles underwent the usual stages.

The virus collected from the second cow was introduced by four punctures in the arm of a child two years old. For the first few days the wound became inflamed, and seemed to be advancing to suppuration; but, by the seventh, all these appearances had vanished.

M. Numann, from these experiments, is led to believe that it is not genuine vaccinia, which is caused by the infection of a cow with variolous matter;—he thinks that the sparing and very limited eruption which he observed on the backs of the cows ought to be considered rather as a modification, or an analogous sort of the genuine smallpox.

It is to be remarked that in M. N.'s trials, the animals suffered extremely little disturbance of health; whereas M. Sonderland has intimated the occasional severity of the constitutional symptoms.

[It is to be regretted that the author does not state distinctly whether the cows on which he performed his experiments had ever exhibited previously the eruption of the proper natural vaccinia;—it may possibly be, that their systems had obtained a certain degree of immunity, or protection in this way; at all events, the circumstance should be noticed in reports of such experiments.—*Ed.*]

M. Numann adds that it is a fact generally known that true vaccine virus oxidizes quickly some of the metals, and especially iron; a property not possessed by genuine variolous matter, nor by the lymph of the pseudo-variolous pimples on the cow; for one of the lancets which had been imbued with it did not present 14 days after the slightest trace of oxidation.

In conclusion, the interesting topic of this memoir deserves serious attention, and ought to be cautiously investigated in a much more elaborate style, and on a much more extensive scale, than has been attempted hitherto.—*Journal der Pract. Heilkunde.*

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## XX. On Sanguineous Tumours of the Cranium.

The most common and least dangerous sort of these bloody swellings is, when the blood is effused between the aponeurosis of the occipito-frontalis muscle, and the common integuments.—They are very often observed on the heads of new-born infants, and are no doubt caused by the severe contusion of the cranium, during its expulsion through the pelvis. This is the "caput succedaneum" of some German authors. In general, it may be easily discussed under the use of resolvent applications.

The second variety of bloody tumors of the scalp, and which is usually caused by contusions or other external violence, is that which has been described by M. Zeller under the name of cephalæmatomié. The blood is diffused between the aponeurosis and pericranium. The German and Italian writers have often confounded this variety with the former;—it is only on this supposition, that we can account for their differences of opinion with respect to the danger or not of these bloody swellings, and to the treatment which they have recommended; some advising the knife to be used, others trusting to discutient lotions.

The fluctuation is not so distinct as in the first-mentioned kind, and the blood becomes diffused more readily, so that it does not generally present the appearance of a depression in the centre, and an elevated hardened border round; signs which have sometimes led surgeons to suppose that there was a depressed fracture of the bone, when the effects of the bruise were nothing but an enchymosed subcutaneous swelling. In this sort the aponeurosis sometimes forms a solid cyst round the extravasated blood. Whenever the pericranium becomes detached from the skull the injury assumes a more grave importance;—we cannot with certainty predict that the bone may not become ultimately necrosed. But this is rare, and authors have no doubt often committed the error of supposing that the blood was in contact with the bones, when the investing membrane of the

latter was quite entire and firmly adhering.

M. Velpeau mentions a case of a child, only ten days old, being brought to him, for a supposed hernia of the brain.

A soft fluctuating tumor covered the greater part of the left parietal, part of the temporal, and almost the whole of the occipital bone. The dispersion of this swelling was easily effected in the course of a few days. It is quite an unusual occurrence, that the pericranium is detached from the bone in newborn infants, however difficult the delivery may have been, and however large the quantity of blood effused. Sometimes, indeed, when a true encephalocele does exist, we meet with bloody swellings, which have their seat next to the bone, on other parts of the head;—such cases are very generally fatal.

The third species of swelling is situated deeper than either of the preceding two. Chelius, in his Manual of Surgery, published in 1827 at Heidelberg, places it in the diploe of the bones; M. Velpeau thinks that it more frequently begins between the bone and the dura mater, although a case mentioned to him by M. Lanth is more favorable to the other opinion. A man received a blow with a cudgel on the parietal bone; but little notice was taken of it, and in the course of a few days he appeared to have quite recovered. Several months after severe pains were felt in the part diametrically opposite; (are we to understand the parietal bone of the other side?) and it was judged proper to trephine the bone there; but no correct information as to the true nature of the disease was obtained by the operation. After death, a fungoid mass was discovered, of the size of a large walnut, flattened, and, as it were, incysted in the diploe of the bone, where the blow had been received.

M. Velpeau has seen two cases in which blood was effused between the dura mater and bone during accouchement. It is very probable that the blood retained in this situation may undergo certain changes and ultimately give rise to some of the cranial fungoid tumors.—*Journal Hebdomadaire.*

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## XXI. Use of Iodine in Apocryphal Swellings and Ulcers of the Throat.

Dr. Martini, of Lubeck, has found this remedy very successful in many cases of ulceration of the throat, in which it was quite doubtful, whether the venereal poison was the cause or not. A woman, 40 years of age, who had never, according to her own report, had syphilis under any form, consulted Dr. M. for an ulceration in the throat of two or three months' standing. The appearances of the sore were very suspicious; it was excavated, hard, and painful. The iodine, according to Coindet's formula, was ordered, and nothing else. In the course of a week the ulcer was much improved, and speedily afterwards it healed up. The woman's health, which of late had become very precarious, was much improved under the use of the medicine; and at the same time a leucorrhœa, which had existed for several years, ceased.

The author alludes to other three cases which occurred in male patients, all of whom had suffered previously from genuine syphilis. The subject of the first was a young sailor, who had taken a quantity of syrop de lafecteur, and syrop du cuisinier, (both of these nostrums contain corrosive sublimate) his throat exhibited several irregular excavations with elevated edges. The second case occurred in an old bawd; the greater part of the velum had already been eaten away; and the third in a merchant, 36 years of age, who had caught syphilis in England; was treated with mercury by one of the first physicians in London, and as was supposed, with success. He afterwards travelled in Russia and in France; the disease had repeatedly broken out under some secondary form; and a variety of treatments had been resorted to. To all of these three the iodine was given, and the results were most satisfactory; the ulcerations healed up quickly, and the general health of the patients was

improved. In some cases the medicine requires to be persevered in for a considerable length of time, before its salutary effects are observed; but on no occasion has Dr. M. found any evil to result from its use.—*Journ. der Pract. Heilkunde.*

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## XXII. USE OF TARTAR EMETIC IN CROUP.

*Case* 1. A child, 3½ years of age, was seized on the 1st of January, with the early symptoms of croup. On the 3d they had reached a formidable height; the shrill crowing noise during inspiration, the wide-expanded nostrils, the rapid heavings of the chest, the tossing and throwing back of the head to catch the least breath of air, in company with violent pyrexia, at once attested the disease. Eight leeches to the throat were applied; a calomel powder given every hour or two, and a blister over the sternum.

5th. A similar treatment has been continued since last report; and under it the symptoms are much mitigated. Small doses of nitre, antimonial wine, and spiritus mindereri, to be given in the intervals between the calomel powders. Next day there was a relapse of all the alarming symptoms; the cough was frequent and strangling; the breathing laborious, shrill, and crowing, and the little patient was burned up with strong fever. Six leeches were ordered to the throat, and one of the following powders given every hour.

℞. Sulphuret. Antimon. rubri, gr. i.
Florum zinci, gr. ij.
Calomelanos, gr.vj.
Misce, et in pulv. vj. divide.

But the alarming symptoms were not abated, and they threatened a speedy death by suffocation, if relief was not promptly afforded. Two grains of emetic tartar, and ten of epecacuan powder were divided into three doses, of which one was given every half hour till free vomiting was induced. Although this effect was not obtained, the breathing had become easier, and the little patient was not so agitated. Whenever the cough came on, much frothy mucus was expectorated—the pulse was also reduced in frequency, and with the exception of the great exhaustion, the case promised to go on favourably. Under the use of mild demulcent and expectorant medicines, the litttle patient recovered rapidly.

*Case* 2. Dr. L. was summoned to a child aged 4½ years, which had been labouring under the premonitory symptoms of croup for four days previously. The peculiar shrill piping sound of the inspiration, and the strangling cough, announced a case of the angina membranacea. Eight leeches were immediately applied to the front of the throat, and a powder consisting of calomel and Kermes mineral, given every hour. A blister was likewise put upon the neck. On the following day the child was found to be considerably relieved; but towards evening there was a relapse of all the very worst symptoms; and in consequence of the extreme exhaustion of the patient, a repetition of the bleeding was not deemed advisable; and the calomel, which had been pushed to the extent of twenty grains, had already been found ineffectual. The powders of emetic tartar and of ipecacuan, ordered in the former cases, were therefore given. No vomiting nor purging however were induced by them; but the distress in breathing became greatly diminished when two had been taken; the pulse was less rapid, and a gentle perspiration bedewed the skin. The emetic powders were continued, but now at longer intervals; and a small dose of calomel was given occasionlly. On the following day the little patient was greatly better; the sleep had been quiet and refreshing during the night, the breathing not much hurried, and the cough less frequent and looser at the same time. From this date, convalescence might be said to have been established.

It is worthy of notice that in both of the preceding cases the tartar emetic and ipecacuan induced scarcely any vomiting; they acted as antiphlogistics and expectorants.

The third case mentioned by Dr. L. is one of ordinary bronchitis occurring

in a child 20 months old; the treatment consisted in leeching, and small doses of the antimonial and ipecacuan powder; the cure was speedy and complete.

The fourth case is one of cynanche trachealis. Nothing except leeching and the exhibition of repeated doses of the emetic powder was done: but the success was most satisfactory.

In these two last cases the medicine caused much more vomiting and also purging than in the two others. Of late years the preparations of antimony, and especially the tartrate, have been highly recommended in pneumonic and bronchitic cases; to these diseases we may add all inflammatory affections of the other parts of the respiratory system.

They are admirably well suited to the treatment of young children, in whom we find difficulty of employing a multitude of remedies which may be used by adults. With a few dozen of leeches, and a phial of the ipecacuan and antimony powders, we may treat a host of diseases of the air passages, much more successfully than our neighbours, who are using remedies of every shape, consistence and colour, which the tricky art of the pharmacopolist can prepare.—*Ibid.*

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## XXIII. PARALYSIS OF THE NERVES OF SEEING, HEARING, AND SMELLING —INTEGRITY OF THOSE OF TASTE AND OF TOUCH.

A young woman, 21 years of age, of a lymphatic temperament, was admitted on the 10th of March into the Hôtel Dieu.

As she was nearly quite deaf, and could not read, it was impossible to obtain any correct information of her malady. The physiognomy was motionless, the general attitude without animation, the eyes were fixed and prominent, and the speech was slow and difficult; she was constantly either complaining of a pain at the top of the head, or calling for food, or saying that she was in the family-way. Some symptoms of gastric irritation being present, a few leeches were applied to the epigastrium with relief. Her friends at this time informed the physician, that she had been afflicted with the headache for at least the six last years, accompanied with a gradual decay of hearing, and, of late, with a loss of the sense of smelling. The intellect did not seem to be directly impaired —the general sensibility of the skin of the face and head was entire— the voluntary muscles, also, of these parts were sound in their functions, but the sense of hearing was almost completely gone: the sight, which, upon admission into the hospital, was only much weakened, had since been lost, the pupils being dilated and motionless, and the conjunctiva, although evidently much inflamed and dry, from the cessation of the lacrymal discharge, scarce sensible to any mechanical irritation— the pituitary membrane, too, was robbed of its general and special sensibility. A probe, introduced into the nostrils, might be moved freely about, without any distress to the patient, and strong hartshorn did not, for the first few minutes, cause any sneezing; the sense of taste seemed to be unaffected. The intense cephalalgia increased daily in severity, the poor woman groaning continually and pressing her hands upon her head—at one time in a state of excitement, and the next moment in that of stupor or coma. After the lapse of another week, no decided change had appeared: the swelling and redness of the conjunctiva was, indeed, increased —the opacity of the cornæ greater at some points, and their texture more softened, near the junction with the sclerotic. On the 3d of May the patient miscarried, and died soon after from the profuse flooding.

*Dissection.* When the brain was taken out, the attention of the medical men was struck with the unusually large size of the cerebral nerves, which had been cut through. The meso-cephalon and the rachidian bulb were also much enlarged. The olfactory and optic nerves did not present any lesion in any part of their course. The pathetic nerves, the motor oculi of the left side, and the hypoglossal and glos-

so-pharyngeal, were quite sound. All the other encephalic nerves exhibited signs of disease; they were increased to at least three times their ordinary size, and numerous small spheroidal tumours, two or three lines in diameter, were developed in the interior of the nervous cords, or on their surface. Some of these masses were quite circumscribed, but not contained in any cyst; others were more irregular, and seemed to be formed of numerous minute granulations, deposited between the nervous filaments, which thus either were separated from each other or traversed the diseased substance. This was of a yellowish and opaque appearance, resembling what we see in partially-softened tuberculous matter. Most of the tumours were situated very near to the point of emergence of the nerves from the cerebral substance. These nerves, upon leaving the tuberculous mass, became suddenly diminished in size. The two motores oculorum proceeded from the summit of a conical mass resting on the pedunculi cerebri, whence the nerves arise. A similar appearance was found at the points of origin of the fifth cerebral nerves; the muscular portion of the right nerve appeared sound. On the left side, the tuberculous matter could be traced to the internal part of the Gasserian ganglion. A small tubercle was situated at the inferior part of the right sixth nerve, but the greater number of the filaments were above it, and did not seem affected. The seventh pair were diseased, from their origins to the internal auditory foramina. The right pneumogastric was in a similar state for the extent of an inch. The lungs of this patient did not exhibit any tuberculous deposits.

*Remarks.* If the description of the preceding case be altogether correct, some interesting physiological deductions might be gained. The opinion of Majendie as to the functions of the fifth pair is partly confirmed, and partly contradicted by the report. All the lesions of the organs of sight and smell, indicated by this great physiologist to be consequent on the injury of these nerves, existed in this case. M. Cruveilheir, indeed, who was present at the dissection, thought that he could perceive a small tubercle in one of the optic nerves; but the other examiners attributed the appearance in question to partial desiccation and exposure to the air of the cut surface, and, at all events, it was very indistinct. However that may be, we cannot refuse to admit, that the result of this case very beautifully corroborates the conclusion, that the fifth pair has a direct influence on the nutrition of the eye, and that, if it be not the immediate seat of the four special perceptive senses, it is at least intimately connected with the healthy development of their functions.

The most puzzling part of the symptomatology, is to account for the persistence of the sensibility and motility of the face, while the fifth and seventh pairs of nerves were so seriously involved; for, if any position respecting nervous physiology seems to be established by the phenomena of disease, it is that these two nerves preside over the above functions. Mr. Bell, who read a report upon the preceding case before the Anatomical Society of Paris, is of opinion, that the integrity of the functions was by no means so complete as is stated, for the very expression—"the physiognomy was motionless, the eyes fixed and projecting, and the attitude was inanimate," indicates that the energy of the seventh pair, which has been actually called, par excellence, the nerve of physiognomy, was much affected. Moreover, it is quite possible that the fibres of the nerve might be surrounded with a diseased deposit, and yet have remained but little disorganized. This explanation may also account for the persistence of the sense of taste. It is more difficult to understand how the functions of digestion and respiration were unaffected, while the origin of the pneumogastric nerve was diseased.

The following case deserves to be recorded in connexion with the preceding.

A man received a severe blow just beneath the left suborbital foramen. He was stunned at the time, and, on recovering himself, it was found that

there was complete hemiplegia of that side of the face, extending from the crown of the head to the base of the lower jaw. The nostril had lost its general and olfactory sensibility; one lateral half of the tongue was paralysed; the sight however was intact, but towards the twelfth day after the accident an opthalmia, accompanied with dulness of the cornea, and the formation of an albugineous speck on its centre, supervened. The eye had from the first lost its general sensibility, so that it might be pricked without any distress to the patient; and the secretion of the tears had ceased. The mobility of the left side of the face was unaffected, but mastication could not be performed on this side. His teeth, the patient said, had no strength, and the food distended the cheek, and required his fingers to push it to the other side. The hearing remained entire. From this report we observe, that nearly all the lesions which are caused by dividing the trigeminus nerve, were present in our case.—*Revue Medicale.*

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## XXIV. On the Plica Polonica.

M. Brierre de Boismont, when he visited Warsaw, on the first invasion of the cholera, was anxious to collect some authentic intelligence respecting this singular epidemic disease. But in the city itself it is by no means common; he therefore requested his friend, Dr. Macinkowski to communicate the results of his experience for several years past, and of these results we shall now give a short abstract. The gist of the whole may be thus shortly stated; that the plica is to be considered, rather as a symptom of, or attendant upon a vitiated state of the general system than as a local or idiopathic disease, sui generis.

We are informed that it is comparatively rare among the better classes of society, and that unfortunately a very general notion exists among the lower orders, who are notorious for their filthiness, that it is of no use to apply for medical relief to counteract this peculiar disease of their country.

Such is the true cause of the stubborn obstinacy of the greater number of cases; the constitution has been in fact long polluted, and the offspring of this taint, viz. the curious disease of the hair is rooted, like a poison herb upon a poisoned soil. Nosologists have greatly erred in classifying the plica among diseases of particular tissues; instead of investigating its relations with different morbid states of the system, they have begun by noting down its prominent existing symptoms and appearances, and have tried to deduce from these a theory to explain the various complications of the disease. The error has arisen partly from an old historical tradition, that the plica was imported into Poland in the thirteenth century by the Tartars: but here, as is too often the case with historical narrative, each succeeding author has copied his predecessor, without troubling himself to consult the earliest chroniclers of the event. During the dreadful incursions of these barbarians, they ravaged and desolated all around them; and upon leaving the countries of Poland and Russia, they dammed up many of the streams with the corpses of their victims, thus inundating the soil, and poisoning the atmosphere with pestilence. The effect of this was to occasion a formidable epidemic, but no mention is made of the plica at this time. M. Frank, following Sprengel, is therefore quite in error as to the origin of the disease; and we are therefore warranted by history in not believing that it was communicated contagiously to the Poles by their cruel invaders.

Indeed, the very doctrine of its contagion is quite contradicted by the observations of Dr. Macinkowski; not a single fact, he says, has ever occurred to his notice, to lead him to suppose that it is propagated by direct contact. Besides, it is much more consistent with its singularly circumscribed locality or habitation, to seek the true efficient cause in the influence of manners and social customs, of food, or of certain terrestial and atmospheric phenomena, which may be peculiar to the country, just in the same way as we

account for cretinism among the Alps, and pellagra in the plains of Italy.

In reference to the first mentioned causes, it is interesting to find that a usage prevailed long before the thirteenth century, or even the introduction of Christanity into the country, which very evidently must have had some reference to this subject.

This usage, which was connected with religion, and known by the name of "postrzyzyny," imposed an obligation upon all parents not to cut the hair of their children before they were seven years of age, at which time the ceremony was performed and that of baptism together.

It is not very easy to give any rational explanation of this national custom: be this as it may, we not unfrequently observe in young children, at home, affected with scrofulous disease, a matting together of the hair; and until the scrofulous tendency of the system becomes less and less, the hair does not obtain a healthy developement.

This systemic change is not unfrequent about the period of life at which the ceremony of tonsure was performed by the ancient Poles. Some authors have stated that the plica was first known in Poland about the close of the sixteenth century, and have enumerated among its secondary symptoms a number of those which belong almost exclusively to syphilis; but as this last-named scourge also was introduced into the country at the above date, it is very probable that the two diseases might exist simultaneously, and often were not accurately discriminated from each other.

Leaving however this topic, we shall proceed to give a short description of the genuine plica; and although we set out with contradicting the common opinion of it being a "morbus sui generis, et loci," we deem it more convenient to allude to its outward and more visible signs on the hair and nails, before treating of the systemic disease, with which we believe it to be in all cases connected. The opinion, which was long very prevalent among medical men, that uncleanliness was the common cause of plica, is now abandoned; the single fact that soldiers are sometimes affected with it, would disprove it; for we all know the rigorous discipline maintained over them in respect to washing and so forth. True indeed it is, that neglect of personal cleanliness may cause a matting of the hair, but this is not true plica; it is the "fausse plique," and only requires proper attention to remedy it. In the former the hairs lose their natural and healthy qualities; they are no longer elastic, or shining; they acquire a marbled appearance, and although glued and netted together with a glutinous matter are not less dry than before, with the exceptions of the roots, which are soaked with the diseased secretion.

Such is a concise description of the true plica; the bizarre accounts of the hair becoming painfully sensitive, and bleeding when cut, are drawn from the author's fancies, not from the bed-sides of patients. The second stage of the disease commences when the diseased secretion ceases and healthy hairs spring forth, so as to carry forward and detach the matted web from the scalp;—when the young hairs are sufficiently long, we may readily cut away the mass of disease with perfect safety. A hardening of the nails is an occasional concomitant of the affection of the hair. In respect to the constitutional symptoms, we do not hesitate to assert that every patient is either actually at the time affected with some acute or chronic disease, such as exist in other parts of Europe, or exhibits signs of having recently suffered. Whenever the general health begins to mend, the local disease becomes less; the morbid secretion ceases, and the old diseased mesh is pushed forward by the sprouting of the new healthy hairs beneath. We do not sincerely credit the assertions of authors, that they have seen cases of genuine plica, in individuals who were otherwise quite sound; and our opinion is confirmed by the very admissions of by far the best inquirers, that the disease, before assuming its pathognomic character, always appears under the mask of some other affection.

The local disorder of the hair stands in the same relation to plica as the

profuse perspirations do to the sweating sickness, the diarrhœa to cholera, or the dry parchment skin to pellagra; —these are all mere symptoms; but they do not constitute by themselves the diseases in question.

Perhaps we should be more correct in reference to plica, were we to regard the local affection as a critical event, just in the same manner as we frequently do many hæmorrhages, or profuse sweating, purging, depositions in the urine, salivation, &c. Certain it is, that we have seen towards the close of serious acute diseases, an entanglement of the hairs supervene within the short space of twelve hours, and from that moment an immediate amelioration of the case, which before seemed hopeless, take place. Such examples have generally been met with in young healthy men, who were labouring under violent inflammation of the head or chest, or under those gastro-enteric affections which precede and accompany severe fevers.

But it is more commonly during and after the existence of chronic diseases that we observe the eruption of plica to act as a wholesome derivative or critical discharge. A pedlar Jew had for several years laboured under derangement, and the nutritive functions had also suffered;—on a sudden the symptoms of plica appeared, and the reason and general health were forthwith restored. Dr. Malcz, one of the best physicians in Warsaw, mentioned the case of an officer's lady, which is instructive. She was considered to be phthisical by all who had visited her, and had become extremely emaciated.

No sooner did the hair begin to be diseased than Dr. M. recognized a decided amelioration of all the pectoral symptoms; when the plica was completely developed, her health rapidly improved. At the end of twelve months the capillary disease ceased, so that the entangled mass could be removed; and fortunately there was no return of the chest complaint. It has been stated by many authors that the plica is not now so frequent a disease in Poland as it used to be. No doubt this is correct, in regard to the large towns and among the military; and we attribute the decrease solely to the improved state of medicine, which has introduced a more vigorous treatment of diseases in general. Unfortunately, however, the hut of the peasant, and the hovel of the artisan, are still rife with this endemic. By far the greater number of cases arise as we have described above. In the most aggravated form, which is not often seen, the diseased secretion is astonishingly active, the hairs not only grow quickly, but they become enlarged in size, so as to resemble thick horse-hairs. The Museum of Anatomy in Warsaw contains some specimens truly remarkable from their length and thickness.

In such cases the secretion may be compared in its effects with the colliquative discharges of other maladies. With respect to the external exciting causes of plica, they may be endemic, or special and individual. It is a fact of history that the disease was at one time known not only in the adjoining countries of Hungary and Germany, but also in Alsace, in the Rhenish provinces, and in Belgium.

The excessive filthiness of the poor population, especially among the Jews, no doubt, favors its development, although we do not consider this, per se, to be capable of inducing it. The evil is made worse by the ignorant prejudices which lead them rather to encourage than to stop it, when any symptom of its approach appears; they suppose that it is not possible to prevent its course, and that no medical assistance can be of any avail; they therefore wrap their heads up warm, employ fumigations to them, and moisten them with irritating washes.

We have not sufficiently accurate or extensive observations to enable us to explain the probable aerial and terrestrial agencies. It is a subject well worthy of a diligent inquiry; for its satisfactory solution would contribute powerfully to facilitate the treatment of the disease, and perhaps ultimately to eradicate it completely. It is unnecessary to enlarge upon the different sorts of remedies which have been proposed; the grand indication in all cases is to find out the systemic derange-

ment, and to endeavour to cure that; the local malady is only of secondary importance.—*Archives Generales.*

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XXV. JAHRES BERICHT UBER DAS CHIRURGISCH-AUGENARTZLICHE INSTITUT DER UNIVERSITAT ZU BERLIN. Von C. F. GRAEFE. Quarto, pp. 39.

ANNUAL REPORT OF THE SURGICAL AND OPTHALMOLOGICAL HOSPITAL AT BERLIN.

By far the larger portion of this report, published under the direction of the celebrated surgeon of Berlin, is occupied with a description of his new ligature-instrument. We are not aware that either it, or any similar one, has been much used in this country. The cavula for polypus of the womb, invented by the late Dr. John Clarke of London, approaches somewhat to that now proposed by Graefe, but as far as we know, its application has been limited to the tying of uterine tumor. We shall therefore attempt to give our readers an accurate description of the latter.

The instrument consists essentially of two pieces, which Graefe distinguishes by the names of the ligature-"carrier" and of the ligature-"tyer;" but for shortness sake we shall call them the "director," and the "serre-næud." The directors are made of different lengths, according to the depth of the part where the ligature is to be applied; there should therefore be a variety of them, from two to eight or ten inches long; and all so constructed, that they fit accurately the other part of the instrument;—they should be of the thickness of a small silver catheter. Along one side is a deep groove, extending from about a line or two from the point of the rod terminating there in a short canal, through the remaining portion, to within an inch of the handle-end, where it ceases altogether. This ungrooved part is bored in its centre to admit the screw of the serre-næud, and to the side of this central bore is a crescentic slit, which extends as deep as the female screw, and in which moves a narrow flat rod or plate, affixed to the handle of the serre-næud. The serre-næud, therefore, consists of two parts; one of which is the screw about an inch long, which is received into the female screw, or bore in the handle-end of the director; and the other, the forked appendage, which is composed of the marrow-rod, [rather more than an inch in length, and received into the crescentic slit in the director;] of the proper fork, of a semilunar shape, to which the ligature is made fast, or, in nautical language, is belayed; and of a ring which embraces the screw, and allows it to turn round. These three parts are soldered together, so as to form but one; and as the screw passes through and is confined in the ring, the tout ensemble constitutes the serre-næud portion of the instrument. Now the mode of using this instrument of Baron Graefe is very simple;—the noose of a ligature is passed through the short canal of the director, and the two ends are brought up along the groove, and then made fast at the forked part of the serre-næud, the screw having been previously introduced into the female screw in the director as far as it will go. By unscrewing, we raise the screw, and along with it the fastened ends of the ligature; the noose thereby hanging out from the point of the director is pulled tighter and tighter; and thus we relax or tighten it as we choose, by simply turning the screw one way or the other; and as the length of this is an inch, the size of the noose is consequently reducible by two inches, a degree of compression much more than is required ordinarily; and if in any cases we wish for a still greater, all that is to be done is only to unfasten the ends of the ligature from the fork, draw them up a little, and at the same time turn down the screw to the bottom of its sheath; we thus command a power of compression to the extent of other two inches.

Every surgeon knows what difficulty there is often experienced in applying the noose of the ligature round the neck of a deep-seated polypus, as when it is situated far within the nostrils or in the womb. Dessault contrived an instrument to convey the ligature suffi-

ciently deep, that it may be carried up to the pedicle or narrowest part, and with a slight modification Graefe approves of it highly. It is difficult to give an intelligible description of it in writing, unassisted with drawings;—we may only state, that two wires, bent at their extremities into small semilunar forceps-like curves, are confined close together by a tube or canula, through which they are passed. The ligature is inserted into the ring thus formed by the meeting of the two half-circles of the wires. On pulling back the tube, the wires by their elasticity start from each other, and thus permit the thread to escape. A very excellent representation will be found in the engraving which the Baron has affixed to his memoir.

This eminent surgeon has for several years past used the above described instruments, in a multitude of diseases; and he assures us, that, by their means he has been enabled to apply a ligature with much more ease and efficacy, than with any contrivances which were before in use. They are exceedingly well fitted, for trying all sorts of polypi, whether situated externally, or in any of the mucous passages, as in the nose, ear, throat, womb and rectum; for applying ligatures round the large arteries, as those of the thigh and arm, and also the carotid and innominata; likewise round the spermatic cord in castration, and round the neck of umbilical herniæ of infants. He has found it useful in the radical cure of old fistulæ, such as of the anus; a strong ligature, or wire is passed through the inner one into the rectum and then drawn out, and applied to his apparatus; by the necessary compression, it slowly cuts its way by ulceration, through the walls of the fistula; an adhesive inflammation is meanwhile established, and a complete cure often effected, with little inconvenience or distress.

[We believe that this is the principle of the treatment which has been so long, and in some cases so unsuccessfully employed by M. Van Butchell of London.] For the removal of many cutaneous growths, the ligature is also admirably fitted; when they are at all pediculated, the manœuvre is simple; and even when the basis is broad, a few incisions round it, will enable the operator to effect his purpose easily.

Graefe has in this manner frequently removed large lipomatous growths, also nævi materni, and anastomosing aneurisms with perfect safety, when extirpation with the knife would have been dangerous. For these and many other cases, our author's instrument appears to us to hold out many advantages which entitle it to a preference over the different contrivances, that have hitherto been in common use. But we do not think it at all likely that English surgeons will ever be inclined to use any instrument, as a "presse-artere," but the simple thread, secured by a knot, and either cut close, or permitted to hang from the wound. Where it may be wished to extract a ligature, which has been a sufficient length of time round an artery, or any other part, and which by its presence in a wound keeps up irritation and prevents its closure, the apparatus of Baron Graefe slightly modified, is exceedingly convenient. In the place of the screw part of the instrument, described above, a small windlass is fitted on to the female screw of the director; the ligature applied along the groove as usual, is made fast to the axle of the windlass, and as this is turned round with a neat handle, the thread is generally tightened. All therefore that requires to be done, is to tie the ligature hanging out of the wound to the windlass, and by gentle traction, it will often come away.

We select a case, or two, in which the instrument was used with success. A child eight months old, had a congenital nævus on the fore part of the neck, which measured two inches across, and projected considerably above the level of the surrounding skin. The risk of serious hæmorrhage, and the vicinity of the tumor to the air passages forbad the use of the knife, or of the actual cautery. The ligature was therefore the only safe means, which could be employed, to arrest the increasing size of the tumor, and even to remove it altogether; two, or three incisions were

first made through the skin, round the base, and the ligature introduced fairly to the bottom of these, in order that a secure hold might be kept; as it was tightened once or twice every day, but never so much, as to cause much pain, or any threatening of convulsions; the sphacelated tumor dropped off in eight days, and within the fourth week after the operation, the cure was completed.

In extirpation of the testicle, Graefe recommends that the gland and cord be freely exposed, a ligature passed round the latter, and drawn by means of his instrument so tight as to prevent the circulation through the spermatic arteries, and to benumb the sensibility of the nerves; the cord is then to be divided at about the distance of one third of an inch from the ligature; and the testicle may be thus extirpated without any risk of hæmorrhage, and with very little pain to the patient; should severe pains be felt in the seat of the ligature, some hours after the operation, we are not to remove it, but draw it as tight as we possibly can, so that a complete paralysis of the nerves may be induced.

Some surgeons have indeed condemned such a practice, and have stated as their chief objection the occasion which it not unfrequently gives to tetanus and other nervous affections; in the long experience however of Baron Graefe, these dangerous symptoms have rarely supervened: and on the whole much less seldom, when all the cord has been inclosed within the ligature, as recommended above, than when it has been divided, and a long and often difficult searching after, and tying of the numerous bleeding vessels has been practised. He therefore gives a decided preference to the use of his apparatus which effects a complete compression, so that no hæmorrhage need be feared, and which being so small creates little irritation in the wound, and is easily secured in its place, by a strip or two of plaster. A case is mentioned where a polypus of the posterior nares, measuring three inches in length, two in breadth, and seven and a half in circumference, was successfully removed. A wholesome caution is given, in the extraction of these growths, which ought uniformly to be attended to, and the neglect of which has sometimes proved fatal most unexpectedly. When the polypus is so large, that it cannot be brought out by the anterior nares, the only alternative is to remove it by the mouth; now it has happened, that when it was detached from its pedicle, by the eating through of the ligature, it suddenly fell down into the fauces, upon the opening of the larynx, and thus caused death by suffocation; the Baron therefore advises that a spare ligature should be passed through the substance of the polypus, and its ends brought out by the mouth and fastened to the cheek in order that we may be able at once to extract it, when it has become detached.

If the polypus be situated very deep, we shall derive much assistance from using Dessault's, or Graefe's guiding staff, or canula, with a wire forceps point; indeed several of these may be requisite in operations on the womb, to enable us to carry up the ligature to different parts of the neck of the swelling; when we are satisfied that this is properly effected, they can be easily withdrawn, by merely screwing back the canula, when the continued wires, which previously had been retained together, start open, and thus loose hold of the ligature; the ligature is now to be drawn tight, by means of the apparatus, and the pressure increased every day, until the polypus is detached. The use of these guiding canulæ; is not sufficiently understood by English surgeons; they will be found greatly to facilitate the operation.

Appended to the description of his ligature-apparatus, are a few observations by Graefe, on the styptic qualities of a nostrum which of late years has acquired a high reputation among the Italian surgeons, and for the discovery of the secret of whose composition, not less than 300*l.* has been given, we are told, by Messrs. Godfrey and Cooke, Chemists in London. Some experiments instituted at the Berlin Surgical Hospital in the year 1831, induced our author, to have a favourable opinion of its powers, but subsequent experience has convinced him that not

much dependance can be placed in it, for stopping hæmorrhage from a large artery; unless it is uniform, or nearly so in its results, it would be dangerous to recommend surgeons to employ it, in lieu of a ligature, especially as we know that simple cold water will occasionally succeed, in cases where we should expect a frightful bleeding. It is supposed that this Binellian Water, (such is its name) contains a substance which the German writers call "Kresosot;" and in consequence of this, the Kresosot has been tried by itself in some experiments; but nothing satisfactory has yet been published. With respect to the French proposal of twisting the bleeding mouths of cut vessels, Graefe has made trial of it, in a few cases, but the results do not warrant him in approving of it, except where the vessels are small, and easily drawn out from their sheaths.

*Fractures of the Lower Jaw.*—Most of the cases of this injury have been treated without the application of any splints, or surgical bandages; the simple expedient of supporting the jaw, with a common handkerchief folded and applied under the chin, carried upwards, and tied on the top of the head, has been found quite sufficient.

*Fractures of the Ribs.*—The best bandage is a belt made elastic with twisted spiral springs, introduced between its folds: this yields gently to the action of breathing, and does not incommode the patient with any cordlike tightness. To prevent it slipping down, a shoulder-strap, or two should be fixed to it.

*Congenital Umbilical Hernia.*—Three cases have been treated in the hospital during the last year, and all with the ligature applied by means of the apparatus. They all recovered perfectly.

*Cleft Palate and Staphyloraphy.*—The operation was performed upon an adult patient two different times, but without success. He was, however, furnished with an artificial moveable velum palati, such as was recommended in the 12th volume of Graefe and Walther's Journal of Surgery; and this answered so well, that not only was his speech much improved, but he could swallow fluids with very little difficulty.

*Cæsarian Section.*—The unfortunate patient was 39 years of age, had suffered from rachitis in her youth, and her health had more lately been much reduced by frequent returns of menorrhagia. In 1831 she married, and soon afterwards became pregnant. The first seven months passed away without much inconvenience, but then, from time to time, she often experienced false pains, which were little attended to.

On the 2d of March, 1832, she was seized with regular labour. On the evening of this day she was first visited; it was then found that the first and second periods of delivery were already completed, and that the third period had commenced—the waters had also been discharged. The pains became more frequent and severe, but no progress was made. In this miserable state of suffering she continued for five days (shame to German midwifery! !); and, as there was no hope of the delivery being accomplished, the Cæsarian operation, as the only chance of saving the life of the patient, for no doubt had the child been dead some time, was proposed. All the surgeons in consultation, agreed that embryotomy might possibly be attended with much difficulty (! !), in consequence of the narrowness of the outlet, and, under existing circumstances, that it would be still more dangerous than even the Cæsarian operation (! !). The operation was performed on the 6th of March, at noon. After the tegumentary incisions, the uterus was cut open in the direction of the linea alba, and the dead child was extracted by the feet. When the cord was divided, the placenta came away (by the vagina?) without any assistance, and the womb contracted firmly and sunk into the pelvis; a few stitches were then passed through the lips of the wound, and a bandage applied round the abdomen. On the evening of the third day, severe nervous fever, set in, and she died in the course of the same night.

*Dissection.* The greater part of the external wound had united; very few signs of inflammation were found in any of the viscera. The parenchyma of the fundus of the uterus was uneven, with many knotty indurations, and its outer surface was covered with large excrescences—there was no blood found within the cavity of the organ. The conjugate diameter of the inlet of the pelvis measured scarcely two inches, and the transverse four inches and a half.—[Why are the measurements of outlet not given? Our surprise, in future, at the frequency of this cruel operation in Germany cannot continue, when such a miserable and disgraceful state of professional ignorance is proved to exist even in, or in the neighbourhood of, Berlin.—ED.]

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## XXVI. ON MUCOUS DISCHARGES FROM THE UTERUS.

[Traité des Maladies de l'Uterus. Par Mad. Boivin et M. Dugés.]

The second volume of the work of Madame Boivin and Monsieur Dugés contains a short chapter on the mucous discharges that issue from the uterus. Leucorrhœa may depend on discharge from the vagina alone, but the cavity of the womb not unfrequently contributes to its formation. When the speculum vaginæ is employed in the examination of females suffering from gonorrhœa, a glairy secretion in considerable quantity is often seen to flow from the uterine cavity. Of this we have satisfied others and ourselves. Our authors conclude that simple leucorrhœa most commonly originates in the uterus or in its neck. But observation shews that, in numerous instances, the vagina alone will furnish the secretion.

The mucous discharge from the uterus is always, according to our authors, the result of chronic inflammation. The division they adopt is that into sthenic or active, and asthenic or passive leucorrhœa.

*Subacute or Sthenic Leucorrhœa.*—This form of discharge is accompanied with a feeling of pain in the hypogastrium, extending to the groins, the sacrum, and the loins—a sensation of heat, and of pruritus at the commencement, and of smarting afterwards—scalding and pain in the discharge of urine—and sometimes febrile disturbance. The external organs sometimes exhibit the signs of irritation and of inflammation. On examination of the os uteri it is found perhaps more open, more soft, more moistened, and more painful than its natural condition would explain. The discharge at first is serous or sanguinolent, especially if it succeeds a bleeding from the uterus; it soon becomes thick and yellowish or greenish; sometimes it is glairy, sometimes more puriform and fluid. At a later period it is often milky and white, occasionally mixed with an almost transparent glair, or entirely consisting of the latter, which resembles the mucus secreted by the pituitary membrane. When this is the case, the inflammatory stage has passed away, a circumstance that happens, according to Blatin and to Pinel, in thirty-six or in forty days. Our authors have seen this termination happen earlier, but after the chronic stage has been established, the acute has again returned on the appearance of the menses, upon some excess, or even without any ostensible cause.

It is not always easy to distinguish this active form of leucorrhœa from the chronic or the passive. An experiment with remedies is frequently the best criterion, and discharges that would seem, from the absence of pain and of similar symptoms, to be independent of inflammatory action, are found to yield to antiphlogistic treatment. In the part of the country inhabited by M. Dugés, the females generally abstain from wine, and those who neglect this prudent precaution are subject to discharges, which a milder regimen and a beverage of water speedily disperse.

The treatment recommended by our authors is simple, obvious, and perhaps inefficient. It consists in hip-baths, lavements, emollient poultices, and fomentations, and the steady injection of a bland and tepid liquid, directed to the uterus by means of a tube from a reservoir, raised to a moderate height.

Such are the chief items of the methodus medendi which our authors recommend. The contributions of French practitioners are usually rather of a pathological than a remedial character. They frequently tell us the true nature of a malady, whilst we discover the manner of curing it.

A British surgeon or physician, if convinced of the existence of chronic inflammation of the womb, would probably venture on something more efficient than the lavement-practice of our Continental brethren. He would cup the patient on the loins—give small quantities of mercury, with conium, hyosciamus, or poppy—exhibit mild aperients, such as castor oil—and, as soon as pain had passed away, he would think of gentle tonics and sedative astringent injections. We have lately treated, with considerable satisfaction, some cases of discharge connected with, if not occasioned by, chronic inflammatory action of the uterus, in something like the fashion we have just described. One case made a strong impression on our minds. The patient, a young female, had suffered for several years from discharge, and had been under several practitioners without benefit. She suffered at times from pain in the loins, the digestive functions were imperfectly performed, and there was a tendency to slight pyrexia. Suspecting the existence of some affection of the os uteri, we examined its condition with the speculum vaginæ. We found the uterus somewhat anteverted, the os uteri thickened, the orifice larger than it should be, and the cervix presenting some tenderness on pressure. We directed small cuppings on the loins, a small quantity of the blue-pill, with extract of poppy and of rhubarb, occasional small doses of castor oil, farinaceous food, and the horizontal posture. Under these means, the pain, the pyrexia, and the functional disturbances were speedily removed, and only discharge with debility remained. For the former, we ordered an injection of the decoction of poppies, with lead—for the latter, small doses of infusion of calumba, with the carbonate of soda and the tincture of henbane. In the course of a month from the time we first saw this young lady, the discharge had disappeared, and the general health was restored. We mention this case in illustration of our treatment. Did our limits permit the interruption, we might readily adduce others of an equally favourable character.

We next advert to that which is described under the name of the chronic leucorrhœa.

*Chronic or Passive Leucorrhœa.* In many females, the discharge from the vagina has not had its rise in an inflammatory condition of the uterus, but depends, from the first, on relaxation and debility. The genital organs are habitually bedewed with mucus in such persons, and their linen is stained with a discharge, which they scarcely regard as a disease. Constitution and climate exert a great influence in producing this condition, which is said by our authors to be almost universal in moist and cold countries, as Holland, and some parts of Germany.

This form of leucorrhœa is much more unfrequent in youth than in later life. It is often the result of numerous confinements, or abuse of venery. It often co-exists, in girls, with chlorosis and amenorrhœa.

There are no symptoms of local irritation, unless no attention has been paid to cleanliness, when superficial excoriations of the skin result. The discharge is commonly lactescent. When the mucous discharge is abundant, it stiffens, as it dries, the linen that receives it, and stains it of a greyish colour deeper at the margin. Sometimes the discharge augments on the approach of the catamenia, sometimes it diminishes or ceases. Menstruation established in a case of amenorrhœa has frequently cured an old leucorrhœa, along with its attendant chlorosis. The discharge will vary in quantity, consistence, and in colour. When abundant it is commonly attended with some general and sympathetic symptoms, such as languor, emaciation, gastrodynia, and a sense of dragging in the loins and epigastrium. Sometimes there is sickness, sometimes there are pimples

on the face and especially the forehead, but our authors seem to think that the severer symptoms are usually dependent on indulgence in pernicious habits.—Perhaps it may appear, that as passive leucorrhœa is dependent on debility, and as this is itself the result of many causes, the general or the other symptoms of disturbance that attend on the discharge must vary in different persons. As no fixed law can be given for the symptoms, so no decisive rule can be offered for the treatment.

Our authors advert to a curious and a difficult question. Will the leucorrhœa of the female produce an inflammatory discharge from the urethra of the male? They observe that this has occurred more than once, but they do not explicitly remark if it was observed by them. They think that the occurrence has been more frequent where the leucorrhœa was of the sthenic or subacute character. They also seem to think that in the reputed instances of gonorrhœa produced by the menstrual secretion, it was really occasioned by attendant leucorrhœa. Those most accustomed to investigate venereal diseases will feel the difficulty of deciding such a point. They will acknowledge how impossible it is to pronounce that a discharge is simply leucorrhœa.

Our authors devote but little space to the treatment of the malady. They place their principal reliance on tonics and astringents. The methodus medendi of this country is so much more ample than that of France, that we need not enumerate the remedies they mention. But perhaps we may observe that they recommend in an especial manner the black oxyde of iron in the dose of from three to six grains daily, taken before the principal meal. But all must be regulated by the circumstances of the case. Debility being itself but an effect, a rigid inquiry must ascertain its cause, and the combination of judgment and experience will be necessary to remove it. If the duty of analysis would permit us to allude to the results of our own practice, we would say that the injections of lead and of alum have appeared more beneficial than those of a stimulating kind. Attention has lately been drawn in this country to the powers of the injection of the nitrate of silver. We must say that although we have often employed it, we have seldom found it successful. The injection that has answered most generally and most completely has been the solution of the acetate of lead in decoction of poppies. Beginning with the strength of two grains to the ounce, we have augmented it to that of saturation, or at least to that of eighteen or twenty.

Two other remedies are deserving of attention:—cupping on the loins and the application of blisters in the same situation. Both have been productive of the happiest effects, but we think that the combination of the wet with the dry cupping adds to the efficiency of this mode of derivation.

Our authors relate three cases to which we shall briefly allude.

CASE 1. *Leucorrhœa of doubtful origin.*—Mad. de La * * *, æt. 40, had had several natural labours, and though delicate, was regular in the catamenial secretion, when she began to suffer from obstinate constipation and from leucorrhœa. Her sister had died of cancer of the womb, and this lady experienced, or thought that she experienced, symptoms analogous to those which her sister had exhibited. She had constipation, pain, and a sense of dragging in the loins, and a white discharge, at times abundant.

On examination with the finger, the cervix uteri was found of natural size and free from pain; it was turned to the right side of the pelvis and low down in it. With the speculum, reddish-brown spots on a nearly white ground were seen on the os tincæ. A thick and yellowish secretion issued from the orifice of the uterus.

A small caustic issue on each side of the sacrum, small doses of the sulphate of magnesia, and flannel next the skin, were the means advised by our authors. We are told that in a month the lady departed for the country greatly reassured as to her condition.

CASE 2. The second case related by

our authors is one in which there was reason to suppose, that some serious disease of the uterus was going on. As this was indicated by obvious symptoms we need not pursue our allusion any further.

The third case is one in which there is more than reason to suspect that the discharge partook of a venereal character. It passed away under mercurial treatment.

We have noticed these remarks of our authors on Uterine Discharges, in order to excite the attention of our brethren to an accurate investigation of the causes of leucorrhœa. The treatment is frequently too empirical, and, influenced by a name, the practitioner not uncommonly fails to ascertain the real nature and origin of the malady. If he bears in mind its occasional dependence on different conditions of the uterus and vagina, and that these conditions are at times inflammatory and at times are not, he will probably adapt his means to the case, because he must feel convinced of the necessity of carefully studying the latter.

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## XXVII. CONFIRMATION OF SIR CHAS. BELL'S OPINIONS ON THE FUNCTIONS OF THE ANTERIOR AND POSTERIOR FASCICULI OF THE SPINAL NERVES.

Our attention has been recently drawn to a very valuable paper of Professor Muller, of Bonn, in a late number of the Annales des Sciences Naturelles. The experiments which he adduces are most satisfactory, and will be no doubt considered conclusive, even in Germany, where the doctrine of the separate functions of the abdominal and dorsal roots of the spinal nerves has not been altogether assented to. Meckel, Rudolphi, Weber, and others have admitted it, only as conjectural; our author himself performed some experiments in 1824, with the view of ascertaining its correctness, but the results were far from being uniform and decisive. Bellingeri, in Italy, was also engaged about that time in similar researches, and the conclusions which he drew were, that the anterior fasciculi presided over the sensibility, and the flexion movements of the trunk and extremities, while the posterior presided over the movements of extension. Even Majendie, to whom the second seat of honor is due, as a physiologist of the nervous system, and along with him Desmoulins, in their Anatomie des Syst. Nerv. have not assigned totally exclusive functions to the two sets of nerves in question. Their own words are—"Si l'on galvanise l'une apres l'autre, une racine dorsale, et une racine abdominale, qui ne communique plus avec la moelle, on obtient, à la verité des contractions par chaque racine. Mais les contractions par les racines anterieures sont en general plus fortes, et plus completes, que par les racines posterieures. Les racines posterieures pincées, tiraillées, piquées causent de la douleur, mais une douleur bien moindre, que cela qui resulte de l'irritation de la partie correspondante de la moelle. Alors aussi les muscles correspondans aux nerfs, dont on irrite une racine, se contractent; mais se contractions sont encore moindres que dans le cas de l'irritation meme de la moelle. La section d'un faisceau de racines dorsales cause une secousse de tout le membre correspondant. Les resultas sont inverses en operant sur les racines abdominales; leurs figures, leurs pincemens, produisent des contractions plus fortes et convulsives, tandis que les signes de douleur sont presque nuls. L'isolement des deux proprietés dans chacun des ordres de racines *n'est donc pas absolu.*" Muller commenced a new set of experiments on rabbits, in order to determine this most interesting question; but he found that the previous operation of opening the vertebral canal was so difficult, and attended with such excessive pain to the animals, as frequently to induce involuntary twitches of all the muscles even when the nerves were not directly irritated, so that he was precluded from deducing any satisfactory conclusions. Indeed there must always be this strong objection to all trials made on the higher animals; but the happy thought of Muller, to examine the spinal system of the frog, has fully compensated for the uncertainty of these. The vertebral canal of

the frog may be opened with very little trouble, and with comparatively trifling pain; the animal is so tenacious of life, that it remains quite lively after the operation, and the peculiar arrangement of the anterior and posterior fasciculi of nerves, further facilitates our investigations; for these continue to be distinct from each other, and easily reparable for a considerable distance from their points of origin; the posterior root may therefore be raised on a needle and submitted to experiment, while the anterior one is free from all injury. We shall first mention the effects of simple mechanical, and then those of galvanic irritation on the two sets of nerves.

1. When the posterior root is divided the animal appears to experience 'quelque douleur;' if the distal, or unattached portion be now seized and irritated, there is not the slightest trace of movement in any of the muscles of the trunk, or of the extremities. When the anterior, or abdominal root is simply touched, convulsive movements of the extremities immediately follow. The same phenomena, only more violent, are observed when this root is cut and irritated.

2. The galvanic experiments were performed at first with a single pair of zinc and copper plates. Upon applying the two plates to cut ends of the anterior roots, the muscles became convulsed; but no such effect was ever produced when they were applied to the posterior roots. This latter position contradicts therefore the assertion of Majendie and Desmoulins; but we must remember that their experiments were performed on mammiferous animals; and in these the two sets of roots are too short to enable us to separate them satisfactorily from each other, and thus to avoid the irritation of one set while we are experimenting upon the other. Even in the case of the frog it is necessary, for the sake of accuracy, to isolate the one from the other by means of small glass plates; because the galvanic iritation of the motor nerves is found to take place at the distance of half a line. But in order to insure perfect accuracy, it is better to employ a small voltaic pile; for then we may either apply both poles to the cut end of the nerve, or we may apply one there, and the other to some of the muscles. The following are the results of Muller's experiments in this way.

1. When the two poles are applied to the posterior roots, no convulsive movements follow. 2. When one pole is applied to the posterior nerve, and the other to some muscle at a distance, slight movements of the muscles which are situated in the tract of the galvanic current are observed. 3. When the anterior root is made the subject of these experiments, convulsive movements immediately occur, whether both poles are applied to the nerve, or only one, the other being applied to a muscle; and these movements take place not only in the muscles which are situated in the tract of the current, but throughout the whole extremity. 4. The same result, viz. the occurrence of convulsions, is obtained when one pole is applied to the posterior, and the other to the anterior root. We may therefore safely draw the conclusions, that the posterior roots of the spinal nerves never directly and of themselves provoké muscular contraction; that when they seem to do so (as in the 2nd result) it is only from their acting as conductors, just in the same way as any other moist animal substance, of the galvanic current; and lastly that the anterior nerves not only are conductors of the galvanic current, but also are excited thereby to induce muscular movements in the direction of their branches. Now one of these anterior nerves may be deprived of its "vis motoria," and yet retain its conducting power:—to exhibit this, we need only seize and compress it firmly at a little distance from the cut end; and we shall find that no irritation, either mechanical or galvanic, applied between the point of compression and this end will induce any contractions; but if one of the galvanic poles be applied to the end and another to a distant muscle to which the nerve is distributed, then contractions will immediately follow just as if there was no intermediate pressure; shewing thereby most dis-

tinctly that the nerve retains its conducting power.

It has been supposed that galvanism acts as a special and peculiar irritant to the nerves, and in a manner altogether different from mere mechanical injury; but this is not true, for any foreign body, even not metallic, such, for example, as a quill, when applied to a motor nerve, will provoke muscular contractions. Muller, from multiplied observation, has been led to conclude, 1, that galvanism acts upon the nerves like any other extraneous agent—2, that it is not the proximate cause of muscular contraction; but only that it irritates the nerves, and provokes their "vis motoria," which is altogether different from a galvanic power—3, that it has not been proved that nerves are better conductors of galvanism than other moist animal substances—4, that galvanism excites movements, only when a muscle or a motor nerve are situated in the tract of its current—5, that there are some nerves which have no moving power, and can never of themselves induce any movements; that these are only passive conductors of galvanism—6, that there are other nerves which induce muscular movements, not only on the application of galvanism, but also of any mechanical irritant—7, that the dorsal or posterior roots of the spinal nerves have no "vis motoria," but that the anterior have, and that from these last, all the motor fibres of the conjoinded spinal nerves are derived. He once more alludes to the fallacy of believing that the posterior are ever motor nerves, merely because, when one pole is applied to them, and the other to a muscle, certain movements take place.

The next object of his investigation, was to ascertain what effects are produced by irritation of the proximal, or attached ends of the divided anterior and posterior roots. He found that, when a mechanical agent, or when both poles of a galvanic apparatus, were applied to any of these, no muscular movements were ever induced; but that, when one pole was applied to the portions of the roots adhering to the extreme part (cauda equina?) of the spinal marrow, and the other to some anterior part of the body, as, for example, the head, the muscles of the trunk and extremities were thrown into convulsions. In one experiment, he divided all the anterior and posterior roots as high as the cervical portion of the marrow, and then gently lifted out the spinal cord from its canal, and laid it upon a small glass plate; upon applying both poles to its sacral extremity, there were movements in all the parts which had been left connected with the marrow, viz. the neck and anterior extremities. If this position be confirmed, it would shew, that the spinal cord is not to be considered as only the "ensemble" of the nerves which issue from it; for we have seen that the portions of the roots which may be left adhering to the extreme parts of the marrow, do not, upon any irritation, induce muscular movements, but that the marrow itself, if irritated, does.

A few cursory remarks on some of the cerebral nerves are appended to the preceding valuable memoir. Muller agrees with Mayo and others, that the portio dura is not solely and exclusively a motor nerve—when irritated, the animal seems to experience pain. The infra-orbital nerve is one of mere sensation—it has no "vis motoria." With regard to the nerves of the tongue, Muller is led, by his experiments, to state that the lingual, or ninth cerebral nerve, when irritated or galvanized, provokes violent convulsions of the member; that the gustatory, or third division of the trigeminus, excites none of these phenomena, either by mechanical or galvanic agency, except, indeed, when one pole is applied to the nerve and another to the tongue; but, as we have explained before, this sign is quite fallacious, the nerve serving only as a conductor. The glossopharyngeal nerve, on the application of both poles, excites convulsions in the pharynx. These experiments accord with those of Desmoulins and Majendie.

When the lingual nerve was cut, the animal (a cat) seemed to suffer pain; and hence Muller believes that this nerve, although chiefly a motor, is also, in some degree, a sensitive nerve, in the

same manner as he supposes the portio dura and par vagum to be. But his experiments here appear to us far from satisfactory.

*Sir Charles Bell to Dr. Johnson.*

My dear Sir,

I am really obliged to you for giving me the perusal of the analysis of M. Muller's experiments on the nerves. I feel convinced that I was right, from the commencement, in building upon the anatomy, and not upon experiments. All that I ever valued, as ascertained by experiments upon living animals, was, that one nerve differed in function from another. As soon as this was determined, we had a key to the explanation of the nervous system, and had only to be diligent in the pursuit of the anatomy, and in the observation of the natural functions and of their disorders, when the roots of the nerves were affected with disease.

For see what the medical profession have submitted to? We have one man who, by experiment, finds that the optic nerve is not the nerve of vision, and gives to the fifth the function of all the senses:—Another makes experiments upon the brain, and finds that one part makes the animal go forward—that another part makes it go backward, and another makes it wheel round—incapable, at the same time, of comprehending that any one of these *actions* requires the union of all the functions of which they are in search. Then we have experimenters, who tell us that the anterior roots of the spinal nerves are for flexion of the body, whilst the posterior are for extension. There is another of our favourite physiologists,* who, by experiment too, has discovered that there is a fluid moving backwards and forwards along the spinal marrow and the ventricles of the brain, which if it chance to become cold, produces ague—by operating upon it, he can tame the most ferocious beast; and, to cure a horse affected with "immobilité," he applies a flaming moxa to the animal's back, to draw this fluid out from the ventricles of the brain! In a state of the profession where these things are received as matters of science, can any one diligently labour from the desire of earning its approbation?

When I had yesterday the pleasure of meeting you in consultation, I shewed you a preparation which I value more than all the contributions from experimenters. It is a dissection, by Mr. Newport, of the nerves of one of the articulata, in which the analogy of the great central cord with the spinal nerves of the vertebrata is made out. In one aspect of the cord, you see the nervous matter forming a succession of ganglions; on the other, you see a column of nervous substance running over these ganglions, in the whole length of the cord. Can there be any doubt that these different columns are for sensation and motion?

But I am omitting to express the pleasure that I have had in reading your digest of Muller's observations. He has with great acumen shown the misapplication of the galvanic influence—the mistakes that experimenters have run into by not distinguishing between the vital power of the nerve, and its power of conducting galvanic influence. With respect to the experiments on the nerves of the head, we have again the proof of the superior importance of anatomy. Is it not really provoking to find men announcing experiments upon the par vagum, the portio dura of the seventh, the ninth, the glosso-pharyngeal, not only without studying the functions of the parts to which these nerves go, but totally negligent of the associations formed at their roots, and that they are *compound* nerves? I have occupied myself, in the intervals of business, now for a long time, with the investigation of the anatomy of these nerves, to show from whence the sensibilities of the throat and tongue are derived—how the associated actions of respiration, speech, and deglutition are formed; but here come gentlemen, without troubling themselves with these matters, who, with the cut of a knife upon a living animal, seek to solve all the difficulties at once. Even in regard

* Majendie.

to the portio-dura, without noticing its connexions with the fifth pair within the bone, without noticing that a *sensitive* nerve runs into its very centre before the ear, they occupy themselves with experiments which are to declare whether that nerve be sensible or not; and they come to conclusions directly at variance with what we now happily know, through the daily observation in hospital practice, to be the distinct functions of the portio dura of the seventh and of the fifth. I stand excused if I harbour a suspicion that some of these gentlemen are not altogether candid. For many years before I ceased lecturing in Windmill Street, when treating on the nerves, there were hung up behind me, three large sheets or plans, one explanatory of the symmetrical system, or the fifth pair or spinal nerves, another of the more irregular and respiratory nerves, and the third of the sympathetic system. By first teaching the simplicity and order which belonged to these systems separately, and then placing the one sheet over the other, I conveyed to the pupils a lively conception of the intricacy of the whole, and yet how possible it was, by taking correct notions of the roots of the nerves, to bring order out of confusion.

In the plan which exposed the symmetrical nerves, it was made obvious that the head had the same supply of nerves as the body—that a nerve of the same structure with the spinal nerves, having the same double roots from the projected columns, having the same ganglion on one of the roots, performed the same offices with the spinal nerves: and that this nerve, in the system of Willis, was what is termed the fifth pair of the head. The experiments which were made to prove the correctness of the deductions from the anatomy were exceedingly simple and conclusive. Your late friend, Mr. John Shaw, immediately after an ass was knocked down, irritated the roots of the fifth pair of nerves, when the jaws closed with a violent snap—the fifth pair was, therefore, proved to be a muscular nerve. Next, considering the sensibility of the lips, the infra-orbitary nerve was divided, after which the spur or the needle applied to the lip produced no effect. The matter being thus settled, both from my experiments on the roots of the spinal nerves and from those on the fifth pair, which confirmed them, that the nerves of the symmetrical system were sensitive and muscular, it remained only to be determined what was the intention or use of the distribution of certain other nerves which I early in these enquiries called the "superadded" nerves to organs already supplied by the spinal nerves and fifth pair: and to this, the most difficult and important part of the subject, I applied myself. The conclusion to which I came from studying the anatomy, the functions of the organs, and the influence of morbid structure, was, that the seeming intricacy of the nerves resulted from there being somewhere a centre in the nervous system, which governed the actions of respiration; and that these nerves, diverging from that centre, passed on to the different parts which co-operated in the act of breathing. The first part of the subject, the symmetrical nerves, I conceived that I had put, by my lectures and publications, out of all hazard of contradiction, and had laid in it a solid foundation for further investigations; —the latter was full of difficulties, and yet so important to the explanation of a variety of phenomena of disease, that it seemed worthy of the united exertions of the profession. On part of this latter subject, as I have informed you, I am still employed, though with less advantage, since I have been obliged to attend to practice instead of giving lectures, where the successive demonstrations of the nervous system continually suggested new subjects of enquiry.

In due time, the facts which I had ascertained were announced in the Philosophical Transactions of the Royal Society, and ultimately in a volume compiled from the various papers in these Transactions. I do think that it is not creditable to the medical profession that the works professing to be systematic and to give a correct view of discovery, should have brought forward as authorities the names of mere experimenters—who first attempted to take the merit of these observations to

themselves, and failing, have prosecuted the subject only to the effect of distracting the minds of those who have not perused any original papers nor the appendix of cases—who, in fact, are not aware of the labour and care with which the first principles have been laid down in them.

I am, my dear Sir,
Very truly your's,
CHARLES BELL.

30, *Brook Street*,
2*d Dec.* 1833.

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## XXVIII. On some Malformations and Diseases of the Œsophagus.

It is a question, still subject to dispute, whether the fœtus is nourished by the umbilical vessels only, or whether the water of the amnios is at the same time swallowed, to afford a pabulum to the young being. The monstrosities of the œsophagus may, if properly studied, throw some light on this curious subject of embryology. The chief "*vitia conformationis*" hitherto observed are, 1. A complete absence of the tube. 2. An arrested development of some portion, generally the inferior. 3. A separation into two portions, an upper and a lower, by a horizontal septum. 4. Its division into two branches. 5. Its origin from the trachea. 6. Its separation into two distinct portions, which are united by a small firm cord. When the œsophagus is altogether wanting, the pharynx usually terminates in a cul de sac. When an arrest of development has taken place, the tube terminates in a cul de sac, lower down and more or less remotely from the stomach; and there is no cardiac orifice of this organ. Professor Rossi saw one case, in which the œsophagus was obstructed by a transverse septum, immediately above the cardia;—the child had voided meconium, before its death, which occurred on the third day after delivery. When the œsophagus is divided into two tubes, these may either be reunited into one, or may remain distinct, only united by a fibrous tissue. This latter case is extremely rare; and so is the strange anomaly of the œsophagus arising from the trachea. Dr. Mondiere has met with only two examples—the infants lived for about 20 hours.

The conclusions which may be fairly drawn from the study of these monstrosities are, that the swallowing of the liquor amnii is not at all requisite for the full development of the child; that the meconium is not at least the exclusive residue of the liquor; and that probably the upper portion of the œsophagus is formed before the lower, the development taking place, from above downwards; for no case has ever been known, where the lower portion existed, while the upper was wanting.

There is considerable analogy between the malformations of the œsophagus and those of the rectum.

### *Rupture of the Œsophagus.*

It occasionally happens that the œsophagus becomes ruptured; but we may suppose that some previous ramollissement or gelatiniform change of its texture, has always pre-existed. A spontaneous rupture of a healthy œsophagus must be exceedingly rare. A case mentioned by Boerhaave seems however to deserve to be considered as such; the laceration was complete, there was no appearance of erosion or ulceration, the stomach was much distended; and during life there had been violent efforts of vomiting.

### *Dilatation of Œsophagus.*

This accident may be either congenital or acquired; it may affect the whole, or only one, or several parts of the tube. Vicq. D'Azyr found in the body of a man a distinct and well-formed crop, (as we see in birds,) without any other signs of a diseased change; but in most cases the dilatation is owing either to a hernia of the mucous membrane through the muscular coat, or to a mechanical distention from a foreign body lodging in the passage, and, in short, to any cause which offers an impediment to swallowing. When the food is arrested in some part of the gullet, it undergoes a partial change; and such cases are usually attended with a great offensiveness of the breath, along with dysphagia, and not unfrequently with a power of rumination.

## INSTITUTE OF FRANCE.

### I. ACADEMY OF SCIENCES.

*Scéances in July.*

#### MORTALITY IN ARMIES.

ACCORDING to the reports of M. Morozzo, one of the late presidents of the Academy of Turin, the mortality in the Piedmontese army, during peace, was very considerbly greater than in the same number of men in civil life. From the year 1775 to 1791 the mortality among the infantry regiments was at least three times as high as among any other set or class of men residing in the same district.

M. Chateauneuf has undertaken similar inquiries into the state of the health of the French armies, and the results of his researches generally agree with those obtained by M. Morozzo. He calculated the aggregate mass of the military establisment, (exclusive of officers, cavalry, artillery, engineers, the gendarmerie, and household troops) from the year 1820 to 1826, at 803,231 men. From this number he deducted the colonial regiments, and the men discharged from the army of France in Spain upon the civil hospitals: among these last mentioned the number of deaths was very considerable. These retrenchments reduced the total to 718,994. Now during the above period the mortality amounted to 14,112—a proportion of 1.96 in 100; but this mortality does not appear to be uniform in the different sections or departments of the troops. M. C. has therefore given in the following particulars:—Non-commissioned officers, 24,370; number of deaths, 266. Drummers, 3,910; deaths, 34. Musicians, 920; deaths, 14. Master-workmen and provosts, 370; deaths, 2. Privates, 90,230; deaths, 2,034. If these data be correct, the proportional annual mortality among the privates is at least twice as great as among the non-commissioned officers.

The causes of such a preponderance may be the following, as mentioned by M. Chateauneuf. 1. The influence of nostalgia. 2. The prevalence of the various forms of syphilis. 3. The insufficiency of the diet;—a pound and a half of bread allowed for each soldier is not enough for many vigorous men; and the animal food which they purchase with their pay does not exceed three ounces per diem. 4. The frequency of duels. From M. Chateauneuf's researches it appears that the mortality in the "bagne" at Brest is less than that among the ordinary troops.

#### MONSTROSITY BY DIPLOGENESIS.

Dr. Scoutteten, of Metz, communicated the particulars of a case in which two female children were born, united by their trunks. The mother a healthy woman, 30 years of age, was delivered on the 26th July, 1833, after a gestation not distinguished by any remarkable occurrence. One of the infants was well-formed, the other was altogether acephalous; the former was baptised in the usual manner; and up to the period when she was examined by Dr. S., (11th July, 1833,*) she continued in perfect health, sucking freely, and seeming to require more nourishment than ordinary children. She slept well, and all the functions were duly performed. The stature was 23 inches; the flesh was soft and not so firm as that of the acephalous twin; the colour of the skin was natural; the navel well formed, and the cord and placenta regular. The acephalous monster was eleven inches in length; it adhered by the lower part of the chest and the upper half of the abdomen to the corresponding parts of the other child. There was no trace of umbilicus; and it was immediately

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* There must be a mistake in the dates; for we are previously told that the child was born on the 26th July; probably it ought to be 26th June.—*Editor.*

above the situation where it ought to have been that the disjunction of the two bodies took place. The lower extremities were well developed; the flesh firm, the legs and feet rather small in proportion to the thighs; the joints stiff and semi-anchylosed. The upper extremities were less developed, the right one being atrophied; and there were only four fingers on the right hand, and these were almost completely grown together. The left arm was better formed; the hand complete, and the fingers, although stiff, were capable of some motion. The vertebral column was bent considerably to the right side; it terminated abruptly on a level with the top of the shoulders; the cervical vertebræ, with the exception of the seventh perhaps, were awanting. At the point of termination, was a distinct, rounded scar, about four inches in extent. There was no anus; but, with this exception, the inferior part of the trunk was normal. There had been no apparent voluntary motion in any part; but it frequently happened that the other child "jouait avec les membres de sa sœur." Although the muscles of animal life were impotent, those of organic life were capable of action; for the bladder contracted and expelled some urine with considerable force. This discharge took place at different times from the two children. We are not informed when this heteradelphous monster (to use St. Hilaire's expression) died but, as the preceding account was laid before the Academy on the 30th July, and M. Serres read a report of the dissection on the 12th August, it was probably a few days anterior to the last date.

The vascular communication between the parasitic acephalite and the other child was principally by two arteries; one of these was a continuation of the internal mammary, and gave origin to the brachial vessels; the other was sent off from the cœliac trunk; and supplied the pelvis and lower extremities. [This description is disgracefully incomplete.] M. Scoutetten is mistaken when he states that this double monster is the only one which has lived. Several others are on record; one born in the Faubourg St. Antoine, lived for some years, and the parents used to carry it about the country for public shew.

### *Séances in August.*

#### LITHOTRITY.

M. Leroy D'Etiolles communicated the results of fifteen patients on whom he had performed the operation of crushing the stone by percussion and pressure. Complete and very speedy success was obtained in fourteen of these cases: a success infinitely greater than that of M. Civiale at the Hôpital Necker, where, during two years, only 27 cures in 43 cases have been effected. The great superiority of the hammering and crushing lithotritic instruments over those which act by successive perforations is thus incontrovertible; and the testimony of M. L. is the more valuable, seeing that he himself contributed not a little to improve the original operation by means of these last.

#### BAREGINE, THE FATTY MATTER FOUND IN MINERAL WATERS.

This is a highly azotized substance which is found in sulphureous thermal waters: when very pure it resembles considerably calf-foot jelly, has no colour, is inodorous, and remains unchanged in the air. It is very sparingly soluble in water, requiring at least a hundred-thousand times its weight; and yet in this extremely small proportion it communicates a certain degree of viscidity to it. When dried and submitted to distillation, it yields an oily matter, some ammonia, and a large quantity of carbon difficult of incineration. When a thermal water is exposed to the air, the baregine appears, not under the form of a uniform gelatinous matter, but in long white filaments, which become of a greenish hue, when the mineral water meets a stream of common water. According to M. Longchamp, the characters of baregine resemble a good deal those of fibrine; like it, it is almost insoluble in water; very little soluble in acids and alcalis at the ordinary temperatures, and when

treated with boiling nitric acid yields oxalic acid, and the bitter product of Welther.

### CALCULOUS AFFECTIONS.

The conclusion which M. Civale has deduced from his researches, embracing 1881 cases observed in different localities, are the following. 1st. The number of children affected with calculous disorders is greater than is usually supposed. Out of the 1881 cases, 1126 occurred in patients under 14 years of age. 2. The number of patients who have calculi in the urethra, is also much more considerable than is generally stated. 3. In many situations the difficulty of procuring good surgical assistance, and the dread of undergoing the cutting operation, induce many to conceal their malady; and thus not a few die without the presence of a calculus having been detected. 4. The mortality, after lithotomy, is greater than we are taught by surgical writers to believe; thus, out of 1644 operations, there were 1276 cures, and 234 deaths. Now, if we recollect, that nearly two-thirds of the patients operated upon were children, in whom the chances of success are at least two-fold, we are forced to the conclusion, that the data furnished by most modern authors are extremely inaccurate.

In fine, says M. Civiale, (when alluding to the success which some surgeons have boasted to have obtained in their practice), experience has proved that the operation of lithotomy may be performed, in a considerable number of cases, without the sacrifice of one life; while, in other cases and under other circumstances, almost every patient has died.

The following statistics, relating to calculous diseases, are given by M. Civiale.

In Nice and its neighbourhood, embracing a population of 32,000 inhabitants, there occurred only five cases in the space of ten years. Two were in children, and three in adults—three cured, one died, and one had incurable fistula remaining.

In Geneva and its territory, with a population of 200,000 inhabitants, 20 cases occurred in seven years: 10 of these were in children, 7 in adults, and 3 in old men. Out of 17 operations, 12 were successful, and 5 fatal.

In Malta and the adjacent islands, having a population of 180,000, only 4 cases occurred—the operation was performed 3 times, and was successful in 2.

In Malaga, with a population of 60,000 inhabitants, only 6 cases occurred. The operation of lithotomy was performed in all these, and appears to have been singularly unfortunate, for one died, and the other five had fistulæ remaining.

In Naples, out of 308 cases of calculus admitted into the hospitals, and operated upon, 261 were cured, and 47 died; 129 of these cases occurred in children, 148 in adults and old men.

In the Lombardo-Venetian territory, embracing a population of 60,000 inhabitants, we have the details of 30 calculus cases, 4 of which occurred in women, and 23 in male children, and 3 in adults. The lateral operation, after the method of Dubois, was performed in all, and there was only one death, and one case of remaining fistula.

In Venice itself, the number of calculous cases, during a space of 10 years, admitted into the provincial hospital, amounts to 68: 4 of these were in females—out of the remaining 64, 44 were in children, 19 in adults, and 5 in old men. The operation was performed 63 times, either with Hawkins' gorget, or with Frere Côme's lithotome caché; 19 of the patients died, and 44 were cured.

From the province of Brescia, having a population of 329,000 inhabitants, 175 cases of calculus are detailed—147 of these were in children, and 28 in adults. The operation of lithotomy was performed 172 times; in 108 of the cases by the lateral method—in 45, by the recto-vesical—in 4, by the Celsian —in 10 by uretrotomy, and in one case by the high, or supra-pubal incision.

In Milan and its environs, with a population of 538,173 inhabitants, 127 cases occurred in 10 years—91 were cured, and 36 died.

At Vienna, the surgical school has admitted, in the course of ten years, 70 cases of calculus. In 63 the operation was performed, and was successful in 48.

*Séances in September.*

STATISTICS—MORTALITY.

M. Moreau de Jonnes, stated some interesting results of his inquiries. It appears that the difference in the mortality of different countries is much greater, than the difference in the number of births—the maximum of the former exceeding the minimum nearly threefold [22, 59], whereas the maximum of reproduction is not higher than double the minimum. The mortality in the Roman states, in the old Venetian territories, in Greece and Turkey, amounts to 1 in 30,—in the Low Countries, in France and in Prussia, 1 in 39—in Switzerland, Austria, Spain, and Portugal, 1 in 40—in Russia and Poland, 1 in 44—in Germany, Denmark, and Sweden, 1 in 45—in Norway, 1 in 48—in Ireland, 1 in 53—in England, 1 in 58—and in Scotland, 1 in 59. The two leading causes which influence the population of a country, are its climate, and the degree of its civilization. A cold climate is certainly more favorable to life than a warm one; and if we examine the rate of mortality in countries within the Torrid Zone, it is much higher than in one of more temperature; thus in Batavia, it amounts to 1 in 26—in Trinidad, 1 in 27—in Martinique, 1 in 28—at Bombay, 1 in 20—at Havannah, 1 in 33. Heberden rated the mortality in the island of Madeira, at 1 in 50. To illustrate the beneficial effects of civilization, the following details are very interesting. In Sweden, from the year 1754 to 1763, the mortality was 1 in 34;—from 1820 to 1825, it was only 1 in 45. In Great Britain, from 1787 to 1789, it was 1 in 43. In France, in 1776, it was 1 in 25½.

The medium of mortality throughout Europe was calculated many years ago at 1 in 36.

QUARANTINE ESTABLISHMENTS.

That indefatigable anti-contagionist, Dr. Chervin, engaged the attention of the Academy with a learned refutation of the reasonings of M. Segur-Dupeyron, the Secretary of the Council of Health, in favour of continuing the present quarantine regulations. The first position of M. D. is, that the countries of Europe, which are known to be most frequently in contact with pestilential diseases, are those, where the doctrine of contagion numbers most partisans. M. Chervin disputes this statement; it is especially inapplicable to America; for at New Orleans, one of the places, which above almost every other, has suffered from the yellow fever, quarantines have been abolished since the year 1825. Even in Spain, where liberty of discussion is prevented, the quarantine enactments are less severe than at our own Marseilles:—The administration of France is decidedly more "contagionist" than that of Spain, and has been the chief cause of retarding those improvements, which the sanitary system of Europe so much demands. England and Holland would have most certainly made the experiment of a greater toleration, had France not mischievously thrown obstacles in their way. The very expense of supporting a large quarantine establishment is immense; the goods too are often much damaged; vessels are destroyed by being obliged to keep in bad anchorages, and sailors often refuse to go in ships, when exposed to the annoyance of imprisonment for 30, or 60 days. The commerce of France has sustained great injury from the strict quarantines imposed, while that of other nations relieved from such vexatious hindrances has proportionally prospered. In England, vessels coming from any part of America are admitted; with us, however they are not; and the Egyptian and Levantine trade is much less fettered in the one country than in the other. M. Chervin calculates that one twelfth of the French shipping is constantly locked up in quarantine.

## II. ACADEMY OF MEDICINE.

*Séances in August.*

### PERICARDITIS INDUCED BY THE PRESENCE OF A NEEDLE IN THE RIGHT VENTRICLE OF THE HEART.

Dr. Renauldin and M. Boujet, of the Hospital Beaujon, communicated the particulars of this very curious case. A man, aged 63, had come from the country to Paris, with the view of settling some of his affairs. It was soon discovered that he laboured under suicidal mania; he wrote a letter, that he was to die in five or six days; and he kept his bed, without taking any nourishment, excepting a little coloured water. One night, he fastened a cord round his neck, and when he was thus found in the morning, he swore that some savages had tried to strangle him.

On being taken to the Hospital Beaujon, he complained of an asthma and oppression at the chest. Percussion elicited a duller sound than natural, at the right anterior part of the chest, and the respiratory murmur was found to be wanting there. The respirations were 27 in the minute, the pulse 129, full, and hard. He could lie on either side; for a few days he found relief from the means which were employed; but upon the 5th day, after his admission, the dyspnœa and oppression increased exceedingly, and while attempting to speak, he suddenly fell back and died.

*Dissection.* The pericardium was distended with two pints of fluid; the bag was much thickened by inflammation, and its inner surface was granulated, and lined with layers of albumen. The heart, at its apex, had contracted an adhesion to it. On cutting open the right ventricle, a needle, three inches at least long, was found fairly imbedded within its walls; its direction was from before backwards, and from above downwards; and it appeared to have penetrated into the cavity of the ventricle. Probably it had been introduced, through one of the intercostal spaces; but no trace of any cicatrix, however small, could be found; how long it had been there, there were no means of discovering; the monomania had existed for several weeks. Perhaps this state of mind was the cause, why the patient did not complain of any uneasiness, or pain in the part.

### AMPUTATION OF THE LEG, EFFECTED BY A LIGATURE.

A man aged 24, while engaged in field labour, was bit by a viper, at the lower and back part of the left leg. According to the usual practice of his country (Lithuania), he fastened a cord firmly around the limb above the wound, and about four inches beneath the patella, and this girth he could tighten still more, by twisting it with a short stick. He allowed it to remain on his leg from the 10th June to the 23d July, on which day the mortified limb dropt off; a considerable hæmorrhage supervened; the wound was oblique, and the stump was of a conical shape, the anterior crest of the tibia being the most projecting part. The skin had already commenced the cicatrizing process, and the fleshy surface was suppurating freely, and covered with healthy granulations—the divided bones felt somewhat rough to the finger, and the fibula had become dead in almost its whole length.

It was referred to MM. Sanson and Adelon, who gave it as their opinion that amputation should have been practised, in order that a more secure and convenient stump might be obtained. A case altogether similar occurred in the person of a young Greek, during the war of the Morea in 1826. He had been bit by a serpent, and applied the ligature himself. He was under the care of the surgeon-major, M. Petitot.

### CANCER OF THE HEART AND OF THE KIDNEYS.

A washerwoman, aged 65, was admitted into the Hospital Beaujon, in a state of great debility and emaciation. On the left side of the abdomen, and just below the edge of the ribs, there was a hard, irregular, and painful tumor,

which was supposed to arise from an enlarged spleen. Her health had been failing for two years, with loss of appetite and sleep, and tendency to diarrhœa. There was no disturbance of the circulation, or of the urinary secretion; at least, if there was any, it must have been inconsiderable, as it did not arrest the attention, either of the patient or of her physician. She was relieved by soothing applications, and by frequent doses of opium, and thus lingered out a tortured existence (for the pain was excruciating) for three months in the hospital.

*Dissection.* In the right ventricle of the heart, a carcinomatous tumor, as big as a walnut, was found. Its surface was irregular, with numerous warty excrescences, like those we see in syphilis. The spleen was not diseased in structure, but much shrivelled in size; the left kidney was greatly enlarged, and presented the true cancerous degeneration throughout its substance. Two small carcinomatous tumors were found in the right kidney and in the uterus.

### HERMAPHRODISM.

M. Castel commences his memoir by stating that, up to the present time, not one case of real and genuine hermaphrodism (by which is meant the coexistence of both sexes, and the consequent simultaneous capability of impregnation and of conception) has ever been discovered, either in man, or in any of the higher animals. Not only has no such instance ever been found, but M. Castel affirms that it never will be found at any future time. Nature, although omnipotent and all-creating, never generates absurdities or incongruities, nor does she ever work, only for the display of power. There is a universal harmony throughout her countless operations; and although seemingly capricious and sportively fickle, 'tis only "seemingly," for, in the pride of our ignorance, we are unable to follow her.

If we contemplate the differences of the two sexes, in the more perfect animals, we shall find that they are not merely physical or structural, the one being distinguished by testicles and penis, the other by ovaries and womb: the whole organism of each suffers and sympathises with their characteristic peculiarities, and their feelings, and instincts, and dispositions are curiously modified, and become, as it were, typical of their different frames.

If this be true, as a general remark applied to the higher animals, how much more striking is it, if we contemplate the two sexes of the human species. The masculine vigour of the one cannot possibly be associated, in the same being, with the feminine tenderness of the other; yet such a strange co-existence must be present, in any case of absolute hermaphrodism. Probably no animal which is capable of a will, in the act of re-production, has ever been, or can ever be, truly hermaphroditic. The simply-organized beings, which are low in the scale of animal life, and which are possessed of the male and female generative organs, have but an indistinct nervous system, and the act of reproduction may be considered as a mere living impulse—an unconscious and involuntary function, scarce in any way different from the impregnation of the germen of a plant by the pollen, which the anther scatters on the pistil. As a general position, which we expect to be completely borne out by the facts which are already known, or which may hereafter be discovered, it may be affirmed that, in proportion as instinct and will exercise a greater or less influence on an animal, in re-producing its like, so are the chances of hermaphrodism, in their species, diminished or increased. Again, the more that the genital organs, in any tribe of animals, differ in their character and structure from the other excretory and secretory organs of the body, the less is the probability of genuine hermaphrodism ever occurring in it.

M. Bouillaud expressed his wish that the Academy should set apart a particular day for the discussion of the curious and intricate subject of hermaphrodism.

M. Adelon deemed this suggestion quite unnecessary, as the number of cases hitherto minutely examined and well authenticated, was too small for any legitimate generalization.

The pretended human hermaphro-

dism, he stated, is only a monstrosity of the genital organs, and never a co-existence of these parts belonging to, and characteristic of, either sex in one being. Now all the genital monstrosities may be reduced to four divisions. —1. Those of males, whose organs in some degree resemble the female sexual apparatus.—2. Those of females whose organs resemble the male apparatus.—3. When the sexual organs are so rudimentary, that we find difficulty in determining the sex of the individual,—and, 4. When there are actually present one or more of the distinctive organs of the two sexes in the same person, even although these organs are far from being perfect and complete, or from being capable both of impregnation and of conception.

When, therefore, we talk of hermaphrodites being either male, female, neutral, or mixed, the language is more convenient than it is correct. As regards the cause of hermaphrodism, in the limited acceptation of the term, the probability is that, in all cases, it is dependent upon either an arrest of developement in fœtal life, or in a positive disease of the fœtus while in utero. M. Breschet followed M. Adelon, and took nearly the same view of the subject. Many of the reported cases of the mixed hermaphrodism are quite apocryphal, and he alluded to one preparation in wax, at the museum of the Faculty of Paris, which the artist has made much more wonderful than Nature had done before him. When difficulty is found in determining the sex of an infant at birth, the civil magistrate of the place may inscribe upon the registry, "sexe non determiné."

### THE ADVANTAGES OF TURNING THE FŒTUS BY THE HEAD RATHER THAN BY THE FEET.

Up to the end of the 16th century, the only mode of turning ever practised was by bringing down the head first; and we find this conduct recommended, not only in such cases as are admitted at the present day to require artificial delivery, but even in common pelvic and feet presentations. Soon after the above-mentioned date, turning by the feet was first proposed, but it was not until the commencement of the 18th century that the practice was generally followed. One of the professors of the School of Strasburg resisted this innovation, strongly maintaining the superiority of the old regime; and his advice was approved of by many of the German practitioners. To justify this preference, it was asserted that when the head presented first, the compression caused by the os uteri is not sufficient to injure the encephalic contents, and moreover, the communicant circulation between mother and child remains unobstructed; whereas in presentations of the lower extremities, the thoracic and abdominal viscera are exposed to a dangerous compression, and the fluids are driven back upon the head, thus causing frequently a fatal cerebral congestion. In confirmation of the truth of this statement, we are told that only one child in twenty delivered by the head is still-born; whereas, the proportion is one to five in feet presentations. In conclusion, it is alleged that whenever the fœtus is moveable within the uterus, it is quite as easy to effect the turning by the head as by the feet.

M. Dubois dissented from the above arguments. He contended that the described dangers of any compression on the abdomen and thorax were most unnecessarily exaggerated, and instanced two cases wherein the shoulder presented along with the head, and yet the children were delivered without any contusion of the thoracic and of the abdominal viscera.

The dread too of the retropulsion of the blood upon the head was an offspring of fancy rather than a result of experience; he did not agree with them in their belief that the os uteri exercised such a constrictive pressure as was alleged; the parts of the fœtus which have already escaped from the uterus are subjected to a less degree of pressure than those still contained within its cavity; and hence we can readily explain why the blood should be driven to and accumulated in the former. Do we not observe that when an arm is

born first, the member frequently becomes much swollen? now this swelling arises from the pressure being less upon the arm than upon the rest of the body. True it may be, that in many children who die after feet-presentation, visceral congestions are not unfrequently discovered; but the cause of these is the compression of the umbilical cord, and not the retropulsion of the fluids which M. Flamant believed to take place.

The compression of the cord is a necessary danger attending all births by the feet, and indeed it constitutes a very serious objection to the process of turning; the child is very often asphyxiated, and in such a case we find upon dissection the same phenomena which are observed after drowning or hanging, viz: an apoplectic plethora within the head, great congestion in the veins of the cerebrum and other viscera.

The calculations which have been adduced to prove the greater safety of turning by the head than by the feet, are not strictly correct, as will appear from the following statement of M. Dubois.

In all such calculations, to ascertain the comparative mortality of the different modes of delivery, we must be careful to exclude from our tables all cases wherein the child has died before actual accouchement has commenced; or wherein the labour has been premature and the child may be therefore not well capable of independent life. Now the new tables which have been recently formed at the Maternité of Paris, on these principles, shew, "that from the 1st of June, 1829, to the 1st of June, 1833, 10724 children have been born at the hospital; of these, 10262 were born by the head, 391 by the lower extremity, 59 by the trunk, and—30 by the face; of the 10262, 9867 were at the full period of gestation, and 395 were not. The 9867 may be reduced to 9837, because in 30 of the cases the fœtus was known to be dead before delivery commenced, and the 395 premature cases may be reduced to 278; for in 83 the fœtus had been dead for some time, and in 34 it was too imperfectly developed for the maintenance of independent life.

Of the 9837 deliveries by the head, at the full time, 191 were born dead; the proportion is therefore one in 51 or 52; and of the 278 prematurely born, 48 were born dead, or one in every 5 or 6. Of the 391 deliveries by the lower extremity, 238 were at the full term, and 153 before the term; from the first number we must deduct 7, who were dead before labour began; and out of the remaining 231, 21 were born dead; a proportion of one to eleven. From the 153 we must deduct 63, in which the child had evidently died during pregnancy, and 30, in which it was too young for independent life; and out of the remaining 60, 10 were born dead; or one in six. From these calculations it appears among other results, that the fœtus at the full period can endure the "*fatigues of accouchement*" with much greater safety than when born at an earlier period, whether they are delivered by the head or not. M. Dubois draws our attention to the important difference in the results by the previous deduction of all the cases in which the fœtus either had been dead for some time before labour, or was incapable of life when delivered. Thus had we enumerated these cases among the mortality in the 10262 head presentations, we should have had 386 deaths, or one in 25; whereas we have fixed it above at one in 51: and in the 391 feet-presentations the deaths would have amounted to 134, or nearly one in two, instead of one in eleven. With regard to the comparative advantages in practice of turning by the head, M. D. admits that in some cases the operation is not only quite possible, [Mad. Lachapelle was wrong in denying this,] but also abundantly easy. He has himself performed it twice when the shoulder presented; but the operation is much more difficult than that of turning by the feet, and should the liquor amnii have copiously escaped, or should the uterus be firmly contracted around the child, the manœuvre is almost impracticable. In the 59 trunk presentations, two were delivered by means of

turning by the head; in a third case the expulsion of a putrid fœtus took place by the shoulder; and in the remaining 56 the child was brought down by the feet. Out of the whole number 59, in 25 only did the child survive; but M. Dubois is of opinion that a still smaller number would have been saved had turning by the head been tried in all.

### CHOLERA AT NEW ORLEANS.

It appears from an able memoir of Dr. Halphen of New Orleans, that the cholera first broke out, during the existence of a most severe epidemic of yellow fever. In the month of September of last year, a good many cases of the yellow fever were observed; but it was not until the middle of the following month, that it was declared epidemic in the place; and about the same time, the new pestilence added its horrors. The character of the former, was as formidable, as it had ever been known on any former year; and all the cases required general bleeding, at the beginning and the strictest antiphlogistic regimen. It seems that this depleting treatment favoured the development of the cholera. In the practice of Dr. H. eight, or ten cases of cholera, occurred in patients actually labouring under yellow fever; but in proportion as the one (the cholera) prevailed, the other became less intense. On the 12th of November, a cold northerly wind sprung up, and in three days the pestilence had entirely vanished.

Dr. H. gives it as his opinion that the cholera was brought to New Orleans from Saint Louis, by the Constitution steam-boat. The remedy which Dr. H. found by far the most efficacious, was a combination of sulphate of quinine with 'thridace;' three grains of the former and one grain of the latter every fifteen, or twenty minutes, until re-action was produced. Enemas with the same were also given.

### TARENTISM.

This hypochondriacal and convulsive affection, is caused, by the bite of the Tarentula. It is most common in the province of Otranto, at the south east side of Italy. The part bitten becomes red and inflamed; and the swelling extends for some distance all round. Some hours afterwards the patient becomes sorrowful, desponding and silent; feels much anxiety and tightness across the chest, and is distressed with vertigo, nausea and vomiting; he gradually sinks into a state of dullness and apathy; and the mere remembrance of his wretchedness, the return of summer heat, or seeing another person afflicted in the same way, as he is himself, brings on severe paroxysms of hypochondriasis. The treatment consists in making the patients dance to the sound of the violin, or bagpipe; and sure enough it is often successful; whether from the copious perspiration induced, or merely from the hiliarity acting on the imagination, we must leave to others to determine. The theriaca and ammonia are at the same time to be given inwardly, and the external use of the ammoniacal soap is also recommended. Dr. Renzi of Naples, the reporter, positively denies the truth of the opinion that Tarentisme, is a form of hypochondriasis, depending solely upon the climate; the only true cause, according to him, being the bite of the Tarentula. He adduces two illustrative cases; one of which occurred in an infant of three months, and the other, in a peasant who was bit during sleep. In both a cure was effected by music.

The Academy was willing to give Dr. Renzi credit, for his industry in collecting the facts; but not for the authenticity of the details. Tarentism is in all senses an imaginary disease.

## *Séances in September.*

### PERITONEAL EXTRA-UTERINE PREGNANCY.

The body of a woman, 78 years of age, was brought to the anatomical theatre of Geneva, and on dissection the following curious anomaly was found.

A tumor, of a hard catilaginous consistence, occupied the right side of the pelvic cavity; it adhered intimately to the bladder, uterus, and vagina, but did not communicate with any of them. On cutting it open, a mummified fœtus,

of about three months, was discovered within. The most minute examination could not ascertain how the fœtus had originally been detached, whether from the ovary or fallopian tube; or whether it had made its escape by a rent from the uterus or vagina. The woman was the mother of three children, and had enjoyed good health, ultimately sinking under the effects of old age. The fœtus had been lodging in its cyst for upwards of thirty years; when taken out, it was found to be encrusted over with a layer of phosphate of lime. M. Cloquet, who read the memoir of M. Majore of Geneva, regarded the present case as an example of true peritoneal pregnancy, the existence of which in the human subject has been so often contested. M. M. Breschet and Beclard, after having carefully examined the reports of all the cases of supposed peritoneal pregnancy on record, were still obliged to refuse their credit to the authenticity of such an occurrence.*

M. Cloquet, in reply, alluded to the admitted occurrence of this anomaly in some of the lower animals; for example, in cats, in which he had seen fœtuses developed within encysted sacs, and these sacs adhering to the peritoneum by means of blood-vessels. M. Velpeau supported these latter views, and adduced two observations from his own experience,—the fœtuses, about three months advanced, had no connexion whatever with the ovary, fallopian, or uterus.

M. Capuron and M. Esquirol relate two other analogous cases. In that detailed by the latter, the woman was 68 years of age. M. Moreau stated that he had once examined a rabbit, in whose abdomen were several fœtuses floating about and quite detached. It is to be remembered that in all such cases the fœtuses are never complete, seldom having reached beyond the early stages of gestation. In the possibility of actual peritoneal pregnancy M. Lisfranc also coincided. The testimony of Professor Lallemand of Montpelier is favorable to the same side of the question;—he has mentioned in his inaugural thesis the case of a woman, who, being affrighted during the act of coition, was immediately seized with a violent pain on one side of the belly. Eight months afterwards she died of extra-uterine gestation; and when opened, the fœtus was found in the situation of her sufferings.

M. Breschet alleged however that in Lallemand's case the fœtus was found between the ovary and the Fallopian tube, and that therefore it ought not to be admitted as one of genuine abdominal pregnancy.

### Eclampsia of Young Infants.

M. Duges explained that this convulsive disease of infancy always depends upon some irritation of the encephalon; that it sometimes is followed by an apoplectic or asphyctic state, and at other times is consecutive to it.* Often while one side of the body is convulsed the other side is paralysed. There is also a strong analogy, if not an absolute identity between infantile eclampsia and the tetanos, which has been improperly constituted a peculiar disease, and said to be exclusively belonging to the West Indies. M. Duges has repeatedly witnessed cases of genuine general as well as partial tetanos in infants at home. There are therefore, according to him, three species of eclampsia, viz. the epileptic, the apoplectic, and the tetanic.

* The explanation which they gave was, that during the fœtal life of the patient herself the germ of a twin child had become included within the body, just in the same way as had happened in the case of the youug Bissieu, reported by Dupuytren, and recorded in the bulletin of the faculty.

* It not unfrequently happens that the symptoms of eclampsia, of apoplexy, and of asphyxia, are so blended and confused together in new-born children, that it is extremely difficult to distinguish the exciting from the excited disease, or to decide whether they are all of simultaneous occurrence. Very soon after birth, probably the apoplexy generally precedes the eclampsia; and in children more advanced, the latter seems to induce the former.

## III.

## CLINICAL REVIEW.

### I. HÔTEL DIEU.

*(Clinique of M. Dupuytren.)*

### HYDATED TUMORS OF THE WRIST.

ENCYSTED tumors, containing a number of small hydatidic bodies, of the size of pear-seeds, form occasionally on the palmer aspect of the wrist, under the aponeurosis, which exists at this part, and among the sheaths of the flexor tendons. Their nature is not unfrequently mistaken, and troublesome consequences have occurred from an injudicious treatment.

*Case* 1. A man-servant, aged 30, having one of these tumors, was admitted into the hospital. It had existed for two years, and extended from about two inches above to the same distance below the wrist-joint. It was somewhat flattened on its surface, and felt like those large sub-pericranial wens, which used to be called 'talpæ;' only that instead of being uniform it swelled out at the two ends, and was girt tight about the middle, by the palmar ligament—thus resembling a double-pouched wallet. The skin at the part was not at all affected in colour. The hand could not be bent upon the forearm, and the movements of the fingers upon the hand were also impeded. Severe lancinating pains extended along the whole palmar extent of the forearm, and deprived the patient of sleep; they were not however increased by pressure upon the tumor; but when this was done, a sort of crepitation was perceptible, just as when we pat a leather pouch, containing some very small leaden bullets; besides, the movement of the small bodies from one end to the other could be felt in this way, and either end might be made to swell out by compression upon the other. Experience having shewn that any other mode of treatment but free incision of these tumors, or amputation of the forearm, (as some have recommended in all cases,) is not only useless but possibly very dangerous, it was determined in the present instance to cut fairly through the sac, empty its contents, and induce a suppurative granulation from its interior. The operation was performed thus: while an assistant pressed firmly upon the palmar ligament, so as to prevent the discharge of the fluid from the whole cyst, a transverse incision was made through the integuments and walls of one of its lobules, care being taken to avoid wounding the annular ligament of the wrist. An innumerable quantity of small, white, hard, oval, or rounded bodies, immediately escaped; the other lobule was then cut open, and a similar discharge flowed out. The sac was thus entirely emptied. A small portion of its walls was pulled out of the wounds, and snipped off with scissors;—it was found to be firm and fibrous, like wet parchment. A piece of lint was pushed into each orifice, so as to prevent them healing outwardly, and a light dressing laid over it. The strictest antiphlogistic treatment was enforced, the patient being bled, leeched, &c., and the arm kept suspended, and constantly wet with a cooling wash.

On the 3d day, the wounds were examined; their edges were so puffy and swollen, that the pieces of lint had been forced out, and the openings were almost closed; the hand and forearm were red and inflamed, and so exquisitely tender, that the slightest motion caused great pain. The lips of the wound were gently separated, and pressure made, so as to squeeze out any contained matter; the dossils of lint were then replaced, and the member enveloped in emollient fomentations.

Every unfavourable symptom gradually abated, granulations sprung up from the bottom, and on the fifteenth

day the cure was assured. Great care was taken each day to empty the pouch of any pus which might be confined. Within the mouth the wounds were completely healed. The use of the local baths was ordered to be continued, for the purpose of relaxing the joint and facilitating its movements.

*Case* 2. A man, aged 29, had been annoyed with one of these tumors for about a twelvemonth: it was very similar to that in the preceding case. The operation has not yet been performed, [month of July.]

In regard to the frequency of these encysted tumors, there seems to be much discrepancy of opinion. Some surgeons tell us that they have never met with them; and yet Dupuytren has treated upwards of fifty cases in the last twenty-five years.

The inference is but too apparent, viz. their nature has not been properly understood. Authors have confounded them, sometimes with white-swellings, and at other times with hydrarthroses of the wrist, or steatomatous, or lipomatous tumors, treating them with resolvent applications, &c. &c. The diagnosis will be much facilitated by attending to the two following signs.

1. They invariably are seated on the palmar side of the wrist, under the carpal ligament, and extend upwards and downwards, forming a bilobulated swelling, like a double-pouched wallet.

2. They crepitate and communicate a feeling, as if little bodies passed and repassed, when pressure is made upon them. Sometimes indeed this symptom is rather obscure; but when it can be felt distinctly, it may be considered as truly and exclusively characteristic of these tumors.

As to the nature of these hydatidic bodies which are found in the sac, observers are not agreed; Dupuytren regards them as organized and living beings; Dumeril and other naturalists as productions which are altogether inorganic; some German physiologists attribute them to the agency of galvanic currents; Professor Petrunti of Naples thinks that they are detached aneurisms or varices of the lymphatic vessels; Dr. Rognetta inclines to the same opinion, and alludes to the occurrence of similar hydatidic tumors developed between the choroid coat and the retina. It is worthy of notice, that in the subject of the second case, mentioned above, there was a coexistent disease of the lymphatic vessels of the whole arm.

### CLUB-FOOT IN NEW-BORN CHILDREN.

A child, 15 days old, was brought to M. Dupuytren's consultation; there was an intro-version of the left foot; the right one being quite natural. A bent splint, well padded, was applied to the outer side of the leg, and a narrow roller then passed from the one to the other, so as to give the requisite inclination outwards. The cure is thus completed usually in four or six weeks.

It is a curious fact, that when a child is affected with this deformity in one foot only, the corresponding limb is generally shorter and worse-fed than the other; and that as soon as the foot recovers its proper position, the irregularity of the limb begins to be, and is soon rectified. Such is Duputren's experience.

### ENCYSTED TUMORS ON THE HEAD.

A woman, 30 years of age, presented a number of these tumors, scattered on different parts of the scalp; they varied in size, from that of a hen's egg, to that of a filbert, the largest ones being situated behind and on the sides. They caused great inconvenience, when the patient rested her head on the pillow. The integuments over some were inflamed and painful.

With regard to the method of extirpating these tumors, Dupuytren prefers that which has been called "enucleation;" an incision is made through the integuments—the cyst is then worked about, and detached from its surrounding connexions with a small fine spatula, passed round between these and the cyst; the tumor is thus quickly and neatly unkernelled, and started out from its socket. It is altogether a much more adroit, less tedious, less painful,

and less dangerous method, than that of dissecting out the sac with the scalpel. When a tumor is very large, M. Dupuytren advises that a circular portion of the integuments be detached from the summit, and the operation then finished, as we have mentioned, with the spatula.

The reporter adds that he has occasionally observed, that the development of wens upon the head is somehow connected with pregnancy.

### SYPHILIS AND SYPHILOID DISEASES.

*Case* 1.—A young female was admitted, for several chronic ulcers upon both legs; the two largest, each about three inches across, were situated on the outer side of the right limb. They had been, for the space of two years, treated as scrofulous sores, and almost every anti-strumous medicine tried without avail. They were indolent and reddish—the granulations were large and atonic—the edges were thin and separated, or, as it were, unglued, and the base or centre of the sores prominent above the rest of the surface. The patient was decidedly of a scrofulous habit. Dupuytren suspected that there was a venereal taint, but the young lady vowed that she was a maid. However, upon an examination, the very obvious traces of having been "unmaided" were not to be gainsayed; and his suspicions being confirmed by other circumstances, the antisyphilitic treatment of the Hôtel Dieu was ordered. [A pill, composed of 1-6th of a grain of corrosive sublimate, 1-4th of a grain of extract of opium, and two grains of extract of guiac, to be taken thrice a day, and also the decoction of sarsaparilla, with a spoonful or two of sudorific syrup; complete abstinence from wine, spirits, and coffee. This treatment is to be continued, in most cases, for two months.]

In twelve days a very visible amendment had taken place, and in twenty more the greater number of the sores were healed.

*Case* 2.—A woman, aged 40, had for eighteen months suffered under ophthalmia in both eyes; every now and then it became worse, and she was obliged to have the eyes constantly bound up, as the admission of the light was quite intolerable. The conjunctiva was found highly vascular, but not much swollen, and there was no discharge; the inner circle of the iris was somewhat injected, and the pupil half closed; the bottom of the eye could not be properly seen. Purgatives, blisters, setons, &c. had been repeatedly tried without success.

The great oculo-cerebral distress which this patient suffered, being much greater than one might expect from the visible local malady, it was supposed probable that the retina might be in a state of inflammation, and if so, the character of the inflammation was specific. The patient resolutely denied having ever incurred the risk of syphilitic infection; but, in spite of this, the mercurial treatment was decided upon, and if no improvement took place in a fortnight, it was to be laid aside. But before the expiry of that period, the ophthalmia had greatly diminished, so that she could bear the admission of light—in another fortnight she was cured. The patient afterwards confessed, that she once had syphilis in her youth.

*Case* 3.—A woman, aged 40, presented an ulcer, situated below the right mamma. It was from three to four inches across, and in some respects resembled a cancerous sore. It was deep, excavated, and filthy—its surface was covered with a putrid eschar or slough—the discharge was most fetid—the edges separated all round, and the adjacent integuments were œdematous. The patient suffered lancinating pains in the sore; the axillary glands, however, were not affected. The disease had commenced, eleven months ago, with a tumor, which subsequently broke; she had been treated for cancer. The antisyphilitic treatment was adopted; the chloride of lime wash was applied to the sore, in order to detach the adhering gangrenous detritus.

In three weeks, the sloughs were all removed, and the aspect of the sore in

every respect so much improved, that under simple treatment it soon healed up.

*Case* 4.—A countrywoman from Picardy, aged 36, had laboured for ten months under complete amaurosis of both eyes. She was four months pregnant; but this circumstance was not confessed at the time of admisssion; the disease had supervened upon an obstinate ophthalmia. On examination, the eyes were found to be quite clear, the pupils insensible to the light, the size of the eyes natural; she complained of severe frontal cephalalgia, but of no pain in the affected organs. The patient was of an exceedingly nervous irritable constitution—the complexion had an earthy hue, and the breath was very fetid. The general functions seemed to be moderately sound. When questioned as to the possibility of venereal infection, she at once denied it. This being the case, and there being no sufficient grounds to infer a rational suspicion, the usual treatment of blistering, purging, vomiting, &c. was employed for some time, but with no benefit.

Again she was examined upon the subject of her previous ailments; and now she confessed having had syphilis, eleven months before. The antiphlogistic treatment was prescribed forthwith, and in ten days the sight of the left eye was completely recovered, and that of the right one much improved. The mercury began to act violently on the intestinal tube, and the consequence of this was, that abortion ensued. In the sequel, the eye-affection was effectually cured.

*Case* 5. A woman, 30 years of age, the mother of one child, and pregnant five months with a second, was admitted into the Hôtel Dieu for an enormous puffy swelling of the whole lower lip; it was red, painful, ulcerated and cracked: there were also three sores, each of the size of a forty-sous piece, on the left cheek, and others, which were smaller, close to the corresponding commissure of the lips. The patient did not exhibit any of the constitutional symptoms of syphilis. She had been six weeks at the Hôpital St. Louis, and treated there with repeated leechings, poultices, and a strict antiphlogistic regimen, but quite unsuccessfully. M. Dupuytren, considering the long standing of the disease, its obstinate resistance to all antiphlogistic remedies, and the filthy aspect of the sores, concluded that it was dependent upon a venereal taint, and ordered the antisyphilitic treatment. No decided amendment took place, till the twelfth day; when cicatrization commenced, and quickly advanced to a perfect cure. The topical application was calomel sprinkled upon the sores, and a mild dressing over it. The course of pregnancy was not at all interfered with by the murcurial treatment.

*Remarks.* Dr. Cayol, one of the able editors of the Revue Medicale, appends a few observations to the preceding report. He states, that although mercury has long been justly considered as a touch-stone to discover the syphilitic infection in obscure and doubtful cases, it is by no means either absolute or exclusive in this respect. It is not absolute, for experience has taught us that not only do some venereal cases resist its operation, but they are most unequivocally exasperated by it, under whatever form it be administered; neither is it exclusive, for many other diseases besides syphilis are speedily and effectually cured by its use.

Without alluding to tumors and chronic swellings, to many old and indolent ulcers, and a host of other maladies, we shall at present mention its very striking efficacy in some cases of abdominal effusion supervening upon peritonitis or enteritis. If the mercurial ointment be freely rubbed in upon the abdomen we have seen immense sero-purulent collections (eight to ten pints for example) dissipated in a few days.

The object of these remarks is to point out the incorrectness of the opinion adduced by the reporter of the preceding clinique, that when a disease which has resisted other modes of treatment, yields to the use of mercury, we

should therefore regard it as depending upon venereal taint.

The medical man who permits his mind to entertain such an idea will run the hazard of frequently compromising the honor and dignity of the profession by rash and groundless suspicions of the moral conduct of his patients.

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## II Hôpital du Midi.

*[Clinique of M. Ricord.]*

### Hydatidic and Cancerous Disease of the Testicle.

A young man, aged 22, was admitted on the 14th February, 1833. Eleven months previously he had observed that his left testicle had increased considerably in weight, and that it was indurated at the base; he felt, however, no pain in it. From that time its size became greater and greater. He consulted several surgeons who told him that it was a simple hydrocele, unattended with any danger. But not being satisfied with their opinions he came up to Paris from the country to consult M. Ricord, who discovered, that in addition to the disease of the testicle, there was also a considerable tumor perceptible on the left side of the abdomen; he complained of severe pains in the region of the kidneys; and these he said had preceded for some days the appearance of the swelling in the abdomen; and of late he felt also prickings in the body of the testicle, which was now so much enlarged as to measure four inches in length, and three at its broadest part: at the inner side, next to the septum scroti, a small glandular body could be felt, of the size and consistence of a healthy testicle. The distended scrotum upon pressure was resistant; it was not however the resistance of fluctuation, but of a bag entirely filled with fluid. The spermatic cord was much stretched, and the vessels were separated from each other, and dispersed in a fan-like manner over the surface of the testicle. The abdominal swelling extended from the false ribs to the pelvis, and from the linea alba, outwardly to the flank. It offered a resistance upon being pressed, very similar to the resistance of the scrotum. Different opinions were still entertained as to the nature of these two tumors; M. Ricord deemed them to be carcinomatous, but thinking that the tunica vaginalis inclosed a good deal of fluid, he first punctured it with a cataract needle, before withdrawing which he turned it round about in different directions, but found no solid obstacle: a few drops of serosity flowed out from the wound. The result of this trial satisfied M. Ricord that there was fluid in the sac, and he reasoned that the interposition of this prevented any accurate examination of the testicle, which, in all probability, was organically diseased, considering the great weight of the swelling. On the 28th he introduced a trocar in two different places, but not a drop of fluid escaped.

The diagnosis now was that the tumor contained serous cysts, whose parietes were fragile and easily torn. If this supposition were correct, the same opinion might be extended to the tumor in the abomen.

*March 14th.* One part of the swelling had become much more prominent, than the rest; and there, it gave a feeling of fluctuation. A straight bistoury was plunged into the depth of four lines, but no discharge followed, although still we thought that fluctuation was perceptible; a probe being now introduced, could be turned round in all directions with ease. Meanwhile the abdominal swelling had increased in bulk considerably, so as to cause oppression to the breathing and general disturbance of the health; and that of the scrotum had almost doubled its size; the wound made with the bistoury had thrown out a cancerous fungus, and the skin around had assumed an erysipelatous purplish aspect; an eschar, as large as a five-franc piece had formed on the most depending part; when this was detached, the subjacent cellular tissue was found sphacelated, and some black fætid sanies flowed out. In this unfavorable state of things, every one was much surprised one day to find that the abdominal swelling had quite vanished; the parietes had recovered

their normal level; the oppression had ceased as if by magic; pressure was no longer painful, and the patient felt within himself light and happy, at the prospect of his return to health, as he supposed. The bowels were twice moved freely, three or four hours after the subsidence of the tumor.

Upon the supposition that the abdominal affection was in a great measure removed, it became now a question, whether the operation of castration was advisable, as there were no doubts that the disease of the testicle, if left to itself, would ultimately prove fatal. The chances of recovery, in the present state of uncertainty, and in the precarious health of the patient, were however far from promising. The testicle was extirpated on the 25th, and for a few days subsequently, the patient continued in a favourable condition. On the 29th symptoms of fever set in, and the wound was pale, and crepitating at some points; from this period he gradually sunk, until death.

*Dissection.* The extirpated testicle was one third smaller than it had been before the operation, in consequence of a quantity of limpid serum having flowed out from an incision with the point of the bistoury. A deep longitudinal cut was made through its entire length; much transparent fluid, contained in serous cysts of a rounded form, and varying in size, from that of a pea, to that of a filbert, escaped. One of these cysts, which was as large as a fowl's egg, had been inadvertently opened during the extirpation of the mass. The rest of the tumor was made up of an encephaloid degeneration, in various degrees of progress; on the back part, there was a smaller tumor, of the size of a walnut, in which the vas deferens terminated, and which contained this encephaloid matter, marbled with effusions of blood. The abdomen was now opened, and a large ovoid pouch, extending from the linea alba to the vertebral column, and from the edge of the ribs to the edge of the pelvis, so as to cover the descending colon and the left kidney, presented itself to view; this pouch had membranous walls, and was half filled with a fluid which obscurely undulated upon percussion. It adhered firmly to the psoas muscle, and also to the aorta and spine. While dissecting it out from its attachments, it burst, and a quantity of yellowish semifluid matter, having a strong fæcal smell, flowed out; a communicating aperture, two inches wide, existed between the cavity of the sac, and the duodenum; and there the volume of the intestine was considerably enlarged. On slitting open the sac in its whole length, the contents were found to be a greyish coloured fluid, seemingly composed of pus and chyme blended together. In conclusion, we may allude to the circumstance of the very sparing escape of fluid from the apertures made with the needle, and trocar, before the operation. Probably the cause of it was that the fluid became diffused through the cellular texture of the scrotum (which were indeed observed upon making the first incision, to be infiltrated with a gelatinous serosity) or in the meshes of the false membranes forming the cysts.

[We are surprised that French authors, whose knowledge of pathology we have always pleasure in admitting, persist in applying the term cancerous to the encephaloid disease, and designating all tumors of the testicle, whatever be their nature, by the general appellation of sarcocele. Such inaccuracies ought to be expunged.—*Tr.*]

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## III. ST. GEORGE'S HOSPITAL.

The cases contained in the following report, have occurred in the practice of Mr. Cæsar Hawkins. We are indebted to the kindness of that gentleman for a perusal of his hospital case-book, from which the particulars will be found to be extracted. Not having personally witnessed the facts, we cannot perhaps do adequate justice to the questions of importance or interest connected with them. But it is a matter of satisfaction to reflect, that the source from which they are obtained is an ample guarantee of their fidelity. At the present day this must be looked on as no contemptible recommendation.

This report will be necessarily miscellaneous in its character.

### DISEASES OF THE TESTIS.

1. *Chronic Inflammation of the Testis—Mercury.*

John Peascud, æt. 43, admitted November 21, 1832, under the care of Mr. Hawkins.

Left testicle enlarged—of a globular form—firmer at the lower than the upper portion—hard and knotty—with some fluid in the cavity of the tunic in front and above—vas deferens thickened. Lower part of the tumor tender to the touch—pain in the course of the cord.

Twelve months ago hernia humoralis on the right side; it passed away spontaneously in the course of a few days. Soon after this the left testis began to swell at its inferior part, and the enlargement gradually increased till two months ago, since which it has been stationary. Has done nothing for the complaint. General health good.

*Pil. hyd.* gr. v. *nocte maneque.*

27th. Tenderness of the lower part of the tumor increased.

*Hirud.* vj. *testi.*

*Dec.* 1. Pyrexia—headache; was first chilly last evening and perspired greatly.

*H. sennæ stat. Hs. salin. 6tis horis. Omr. pil.*

On the 3d, the pyrexia was gone, and the patient was reinstated in the ordinary diet. On the 4th the pills were directed to be resumed, but only at night. On the 9th they were ordered to be continued twice daily.

12th. Mouth sore. Testicle diminishing.

15th. Mouth no longer sore—testicle much smaller.

*Rep. pil. ter die.*

Jan. 5. Testis much smaller—less fluid—hardness still persists.

*Rep. pil. 4ter indies.*

*Jan.* 9. Left the hospital at his own desire. Cannot be considered as wholly cured.

CASE 2.—*Fungoid Disease—Castration—result undetermined.*

George Stedman, æt. 43, admitted Oct. 24, 1832.

Considerable enlargement of the left testis, which is nearly of a globular form, and of an uniform surface. The tunica vaginalis adheres to the testis throughout the greater part of its circumference, but across the upper third a distinction is perceptible, and the tunic can be felt above it. Tumor elastic in its structure, and apparently containing fluid. Cord not augmented in size. No tenderness on pressure of the testis—some pain in the back and in the direction of the cord.

Health tolerably good—pulse 76, and deficient in strength—bowels occasionally relaxed without appreciable cause.

Complaint began two years ago with swelling at the bottom of the scrotum, attended with some pain. Knows no cause for the disease. Has continued to follow his employment during this period, with the exception of one week only.

On the 30th, an explorer was introduced into the lower part of the tumor, but no fluid was discovered; its introduction into the upper part was followed by the flow of two or three ounces of a clear and almost colourless liquid. The swelling was now found to extend somewhat upwards behind the fluid contained within the tunic.

*Broth diet—confinement in bed.*

*Nov.* 7. The testis has diminished a little in size, and parts of it feel softer, and more like fluid, one soft small prominence at the lower part has become more obvious. A needle has been introduced into two or three places, but only a few drops of serum have escaped.

In consultation it has been decided that the testicle should be removed. After a preparatory dose of aperient medicine, this was done upon the 8th.

Two semi-eliptical incisions were made in the skin, and, the tumor being removed by dissection from the scrotum, the cord was held by an assistant whilst it was divided. Two arteries were separately tied in the cord, and some were secured in the cellular membrane. A strip of lint dipped in oil was introduced between the edges of the wound at its bottom, in order to prevent their too speedy re-union; some sutures were employed; and the wound dressed with

plaister, compresses, and the T. bandage. Very little blood was lost in the operation.

On making a section of the tumor, it presented a medulary structure, interspersed with portions of yellow lymph. Superiorly, the cavity of the tunica vaginalis contained several ounces of fluid. It appeared, on an accurate examination, that the testis, at the upper part of the tumor, was healthy, and expanded on its surface. With this healthy part of the testis, the hydrocele was connected. There were neither cysts nor bloody extravasations in the tumor.

3, p. m. *Træ opii*, ℳxxx.

10, p. m. *Pulv. ip. c.* gr. x. *ex Hu. salin. stat.*

*H. salin.* c̄. *Pulv. ip. c.* gr. iv. 6*tis hor.*

9th. Slept little during the night—experiences some pain in the abdomen.

*Vesp. Træ. opii*,, ℳxxx.

10th. Pulse 130—tongue white, rather dry—bowels have not acted since the operation—feels easy.

*Hyd. sub.* c̄ *Op.* gr. j. *h. s. Ol. ricrdæ. Hs. salin.* 6*tis horis.*

11th. Much the same.

*To have some meat to-day.*

The relief from the improvement in the diet would appear to have been marked. No further symptoms of general disorder occurred in the subsequent progress of the case.

On the 12th, the wound was dressed. Two sutures were removed, and one ligature was taken away. Some little suppuration took place around the cord, but it was not of prejudicial importance.

On the 20th, the other ligatures were abstracted.

On the 11th December, the wound was cicatrized, with the exception of one place in the scrotum. At his own desire, he went into the country on the 12th.

CASE 3.—*Fungoid Disease—Castration—Result undetermined.*

George Bennett, æt. 23, admitted October 24th, 1832.

Testis of the right side enlarged, and the tumor of a pyriform shape—testicle not felt distinctly inferiorly and behind—fluctuation detected superiorly and in front. On standing or in walking, a sense of dragging experienced in the course of the cord. General health pretty good—bowels regularly open.

He first perceived the enlargement of the testicle seven months ago, from which period the tumor has progressively increased. Is not aware of any obvious cause.

On the 25th, the tumor was punctured with a trocar, but no fluid was obtained. On the 27th, a grooved needle was introduced in two places in the upper part of the tumor; a small quantity of fluid was discharged. On the 3d of November it was determined to offer the patient the chance that mercury presented.

*Pil. hyd.* gr. v. *bis die.*

6th. The testis has a little increased in size, and whatever fluid may have covered it superficially has been absorbed. The spermatic cord appears to be healthy.

13th. Mouth rather sore. The fluid in the tunic has accumulated again.

*Pil. hyd.* gr. x. *nocte, et* gr. v. *mane.*

20th. Tumor would seem to have increased. Mouth not so much affected as it was.

*Aug. dos. ad* gr. x. *nocte maneque.*

24th. Tumor still on the increase.

*Dec. sars. c.* Oj. *quotid. Omr. Pil.*

On the 5th of Dec. a consultation was held, and on the 6th the testis was removed. The spermatic veins were varicose, and the cord slipped from the finger of the assistant. Some bleeding ensued, there was a consequent delay and trifling embarrassment, and the patient was removed to bed before the dressings were applied. Several arteries were afterwards secured, and the usual sutures, &c. had recourse to.

The testis was converted into a medullary structure, with a small quantity of yellow lymph. Some cells, holding serous fluid, were interspersed in its substance, and portions of coagulated blood were found there. No trace of the tubuli testis remained, and the tunica albuginea appeared to afford an investment to the disease. The tunica vaginalis contained no fluid.

*Tr. opii*, ℥xx. *ult. nocte.*

7th. Some headache—tongue furred—pulse 106. Some swelling in the cord and its vicinity, with an oozing of serum from the wound.

*H. sal.* ē *Vin. ant. t.* ℥xv, 6*tis hor.*

8th. Less pyrexia and functional disturbance. Troublesome cough. Discharge of bloody serum from the wound.

*Adde Fui, oxymel. scill*, ℥j.

9th. Pulse 120——tongue furred——bowels twice opened—slight shivering—countenance flushed—a blush of redness near the wound.

The sutures were removed, and a ligature came away. Some putrid bloody pus escaped.

*Beef-tea*, lbj.

10th. Better. The swelling of the wound is less—the redness has disappeared.

We need not pursue the diurnal details. Healthy suppuration ensued, granulation succeeded, a sinus which remained for some time filled up, and the patient was discharged on the 29th of January.

The results of the operation in both these cases would be gratifying, if candour would permit us to form a decisive opinion, after the lapse of so brief a period. Unhappily, castration for fungoid disease of the testis is rarely attended with success. The instances which we have witnessed at this hospital within the last six or seven years have been discouraging to a great degree. The late Mr. Rose removed a testis affected with this malady, and the disease soon appeared in the lumbar glands. The same thing was observed in a patient of Mr. Keate's. In another patient there appeared a tumor in the neck. Mr. Brodie amputated a testicle affected with hydatid disease. The patient died of peritonitis, and a similar alteration was found in the lymphatic glands of the loins. We might mention other cases equally calculated to display the unpromising nature of the operation. The persons whose cases are contained in this report recived strict injunctions, when they left the hospital, to return if they discovered a reappearance of disease. Perhaps their absence may be looked upon as evidence of their not having suffered a relapse.

Case 4.—*Doubtful affection of the Testis—Cure.*

Joseph Bryony, æt. 13, admitted March 13, 1833.

Has apparently a small tumor of the left epididymis, painful on pressure, but not so when he is quiet.

Four months ago he had pain and swelling in the course of the left spermatic cord and epididymis. These symptoms disappeared in a few days without medical treatment. One week ago had a similar attack, ending in the present condition of the parts.

*Lot. spt. testi.*

*Infus. cascarill*, ℥j. ē. *Liq. potass.* ℥. xv. *ter die.*

Under this treatment the swelling subsided, and the health, if impaired, became restored. He was therefore dismissed cured.

Mr. Hawkins was inclined to think this an instance of scrofulous disease, and the benefit derived from the treatment employed would probably favour the idea.

## Removal by Operation of a Citratrix from a Burn.

*Case.* Jane Perrin, æt. 10, admitted March 13, 1833.

One year ago this child was burnt on the anterior aspect of the elbow-joint. The burn was nearly healed without contraction, but as soon as the cicatrix was almost formed it gradually began to contract.

The cicatrix now covers the inner and fore-part of the joint, extending over two-thirds of the arm and about as much of the forearm. The line of contraction is nearly in the direction of the tendon of the biceps. Some portion is elevated much above the tendon—the centre presents a slight transverse fissure, which, however, is unattended with much inconvenience. She can draw up the hand towards the shoulder, but cannot extend the arm beyond a right angle.

Eight days after her admission the operation was performed. An elliptical incision included the cicatrix, which was then removed by dissection from the parts beneath. Two arteries were tied. The edges of the wound were

brought *transversely* together by adhesive straps, light dressing, and a bandage. A splint was applied to maintain extension.

On the following day there was pyrexia, and on the next an appearance of erysipelas was visible on the posterior surface of the arm. The splint was removed, cold lotion applied, and febrifuge medicine resorted to. The erysipelas attained no degree of severity, and had passed away on the 31st. On this day a splint was re-applied, and a screw was so adjusted as to regulate the extension from day to day.

On the 4th December the wound was dressed with dry lint and strapping. The ulceration healed, the arm became much straighter, and we understand that the operation has proved very successful.

### SECONDARY HÆMORRHAGE.

CASE. *Necrosis of the Thigh—Secondary Hæmorrhage—Ligature of the Femoral Artery—Ultimate Amputation and Cure.**

Jeremiah Chandler, æt. 21, admitted Nov. 21, 1832.

Necrosis of the left thigh—exposed and apparently insulated dead bone felt on the inside just above the knee—much new bone on the outside. Disease commenced three years and a half ago.

On Dec. 13, an operation was performed for the removal of the dead bone. An incision was made on the inside over the new bone, and a small piece was removed by the trephine. The mere application of this was insufficient, and it was necessary to employ the keyhole saw and the trephine again, before the sequestrum could be abstracted. This was nearly four inches in length and one and a half in breath. No hæmorrhage occurred, nor did any vessel require to be secured.

On the 18th the wound was dressed, and some lint, which had been introduced into its cavity for the purpose of keeping its edges asunder, was removed. The wound had a tolerably healthy appearance.

On the following morning, whilst making some exertion, hæmorrhage suddenly took place, and in less than three minutes three pints of arterial blood had been lost. During the attempt of the house-surgeon to arrest the bleeding another pint had been discharged. It was believed that the hæmorrhage proceeded from the trunk of the popliteal artery and a tourniquet was placed upon it. In the course of three quarters of an hour, the femoral artery was tied by Mr. Hawkins in the upper part of the middle third of the thigh. The patient was feeble, with a languid circulation.

On the 23d there was some fever, with intense head-ach. The wound near the knee was suppurating freely—that in the thigh was partially united, but displayed rather foul suppuration in its centre.

*Haust. salin.*

The fever, &c. subsided in a day or two.

On the 29th (10th day,) the ligature came away in the dressings.

Jan. 10th. Wound over the artery almost healed—that over the knee is healthy. A small portion of bone has been to-day extracted.

26th. Small fragment of bone extracted again.

Feb. 5th. Another fragment discharged. Strapping applied to-day.

March 2d. Sickness—constitutional disturbance—pyrexia.

*Hyd. sub.* ℈ *Pulv. ant. stat.*

*H. sal* ℈ *Amm. carb.* gr. v. *Sp. æth. nit.* ʒss. 6*tis horis.*

4th. Sickness rather diminished—bowels more out of order—wound foul, and a swelling in the groin with little pain.

*Ordered calomel with antim. and opium.*

On the next day the wound had assumed a sloughy aspect, and redness extended in all directions from its edges. He was ordered calomel and opium

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* This case having been published, we believe in the Medical Gazette, we shall greatly abridge the details.

thrice daily, and a nitric acid lotion. On the 7th the wound was still extending He was put upon wine, with the volatile alkali. This plan was continued, along with the occasional administration of aperients, of aromatics, and of opiates, until the 25th. We have not space for diurnal reports nor particular prescriptions. Their wearisome monotony would fatigue and disgust the intelligent reader.

Long as was the interval between the commencement of the sloughing and the day just mentioned, the improvement in the wound was not very considerable. On the morning of that day it was dressed in the usual manner, and some slight hæmorrhage appeared to have occurred. Soon afterwards, blood of an arterial character issued from the wound in considerable quantity. A tourniquet was applied in the direction of the artery and the bleeding was controlled. Mr. Keate who, by chance, was then in the hospital, laid open a sinus which extended upwards, and made an incision four inches in length. In doing this he seemed to arrive at the sheath of the artery distended with blood, and found that he could command the bleeding by his fingers after the tourniquet was loosened. In consultation it was determined to amputate, and accordingly the circular operation was performed.

The limb was examined immediately afterwards, but the source of the hæmorrhage was not accurately ascertained. No arterial branch was found to communicate directly with the wound, but there was an opening by sloughing into the vein. Several spiculæ of bone were found. The knee-joint was perfectly free from disease.

During the operation, he required wine, and after its performance the nicest attention was necessary to apportion the degree of support, and the time at which it should be given or withheld.

On the 28th the dressings were removed and the wound was found doing better than was expected. A small part had united by the first intention, the remainder was granulating, with extensive suppuration. The wound did not advance in a progressive manner, for suppuration became too great, some blood was effused, granulations were absorbed, and part of the union gave way. By great attention to the part and to the health these unpleasant consequences were diminished and removed. A sinus which formed at the lower portion of the stump filled up, and on the 29th April the patient was able to dress himself and lie on the outside of his bed.

Here the report in the ward-book terminates, but we believe that no further untoward occurrence took place.

### CASES OF TUMOR OR ENLARGEMENT OF STRUCTURE IN WHICH IODINE WAS USED.

Since this powerful remedy was first introduced to public notice, the opinions of surgeons and physicians have been greatly divided on its real merits. From some it has received extraordinary commendation and a very extensive employment, by others it has been rejected as more dangerous than useful. The following cases may perhaps appear to favour the opinions expressed by the latter. But candour compels us to acknowledge that they prove very little by themselves, and can only be received as trifling additions to the actual collection of facts.

*Case* 1. James Bowles, æt. 33, a smith, admitted November 21st, 1832.

Enlargement of the left femur from about its middle to the knee—tumor formed by the whole bone, which is rough and irregular upon its surface, and apparently not entirely osseous—some pain on pressure, especially on the inner side near the knee—some wasting of the muscles—out of health.

The swelling commenced about the knee five years ago, but was not accompanied with pain for six months. He was then received into the Westminster Hospital and treated by Mr. Guthrie by cupping, blisters, and leeches. From these he received no relief. He now had occasional pain in the hip, worse when quiet than when walking, always aggravated at night, and some-

times extending to the foot. He left the hospital, and subsequently he has followed his occupation at intervals.

*An opiate given each night.*

Nov. 26th. *Ung. hyd. mitior.* ʒj. *Potass. hydriod.* ℈j. *Opii*, gr. x. *M. ft. ung. infric.* ʒj. *femori o. n.*

Dec. 13th. Complains of sore throat, with pain on pressure externally.

The ointment was omitted next day, but on the 16th the pain in the throat was increased, with difficulty of swallowing and pyrexia. By purgation and salines this accidental affection was removed.

Dec. 18th. *Infr. ung.* ʒj. *o. n. iterum.*

22d. *Haust. cinch. ter die. Omr. haust. opiat.*

He continued on this plan with little material alteration till the 16th of January, when he was made an out-patient. At this time the pain and the tenderness were gone, and he thought that on the whole the thigh was better than it had been from the first. The enlargement, however, remained undiminished.

As an out-patient he employed the following ointment.

*Ung. hyd. mitior*, ʒj. *Potass. hydriod.* ʒss. M.

On the 10th April the following report was entered on the book.

Swelling of the lower part of the bone near the joint removed—the central portion continues in nearly the same condition. No pain now, but he has had some since his dismissal from the house. The health is not good.

*Case* 2. Charles Wolger, æt. 23, a bricklayer, admitted Nov. 21, 1832.

Fulness over the front of the left femur, near the trochanter—a sensation of crackling, probably seated over the bone, experienced on moving the femur quickly—no pain on pressing the head of the bone into the socket—wasting of the muscles of the thigh from a little above the middle to the knee—half an inch of shortening of the limb.

Two years ago he first felt pain in the knee; it usually went away when he was quiet. One year ago the hip became painful, and gave him the idea of something being broken in the joint. He has followed his occupation till five weeks ago. He has been cupped upon the hip, and the knee has been repeatedly rubbed without benefit. The health has been and still is good.

27th. *Ung. hyd. mitior*, ʒj. *Potass. hydriod.* ʒss. M. *Inf.* ʒj. *o. n. femori.*

The enlargement seemed at first to decrease in size, and this, with perhaps a more close examination, enabled the following facts to be distinguished.

There appeared to be a tumor in front of the femur, opposite to the trochanter, and a little below it, leaving the neck of the bone quite free. The tumor was about three inches in length and two and a half in breadth, apparently firm, but not having exactly the feeling of bone, and probably covered in part by fluid. It seemed to be attached to the bone, and was covered by the vasti and the rectus.

From Dec. 27th to Jan. 5th, three blisters were applied to the groin, or behind the trochanter. The hydriodated ointment was continued.

16th. The tumor, which had diminished to half its former size, has lately increased, and is larger than it was before his admission. It projects a little more towards the outside of the femur, and occasions no obstruction to the motion of the hip-joint.

On puncturing the tumor with a needle a little serous fluid seems to issue. The sensation communicated by the passage of the instrument is as though it passed through cartilage, and finally struck against bone, more anteriorly than the natural outline of the femur.

The health beginning to suffer in some degree, tonics with acid were exhibited. On the 26th of February the tumor had increased at the back of the trochanter, and was felt extending upwards under the glutæi, which were wasted over it. The softer portion of the tumor seemed in some measure susceptible of the influence of the ointment, but the harder structure certainly resisted it.

Soon after this report the patient became affected with cough and such general ill-health, that his case was confided to the care of the physician. Pre-

viously to this, a caustic issue had been inserted behind the trochanter, but had not been productive of the slightest advantage.

On the 8th of May the patient was dismissed, the iodine, of course, having failed in his instance.

### EXTENSIVE IDIOPATHIC PHLEBITIS CURED.

*Case.* Jane Day, æt. 24, admitted Dec. 19th, 1832.

A chain of abscesses displayed in the course of the saphena major and saphena minor. Leg and foot much swollen, and a large abscess extending from the ham to the ankle—another smaller one on the outside of the leg.

A month ago, while walking up stairs, was suddenly seized with violent pain in the knee, succeeded by pyrexia. In the course of 24 hours, the leg and thigh presented a swelling, commencing at the ankle, and extending up the inside of the thigh, in the course of the saphena vein.

Such were the symptoms and such the history of this complaint. Mr. Hawkins opened both abscesses of the leg, discharging from the greater about twelve ounces of matter, and from the lesser about two or three. The patient was ordered aperients, opiates, and, after the febrile disturbance had subsided, cinchona.

After the evacuation of the matter from the abscesses, the swelling of the leg diminished. There were now two openings on the inside of the thigh, just above the knee, which communicated with the veins, and which gave exit to pus, in considerable quantity, from the veins themselves. Pus could also be distinguished in different parts of the veins, as high as the groin.

She was put upon fish diet, and on the 24th she was ordered wine. On the 27th, a small abscess was opened in the upper part of the thigh.

In a day or two, the leg was in a state to bear pressure by bandages and strapping. Two small sinuses in the thigh were laid open. The abscesses filled up and healed by degrees, the improvement being perceptible first in the lower. The skin and the cellular membrane recovered their natural appearance. The general health was improved pari passu, and the patient was cured about the middle or latter end of the month.

### WOUND OF THE ORBIT BY A PITCHFORK.

*Case.* John Bramwell, æt. 35, admitted Jan. 9th, 1833.

The prong of a pitchfork had been thrust into the left orbit, between its floor and the ball of the eye. Immediately on the receipt of the injury he was sick. He went to an apothecary, who gave him some laudanum, and advised him to apply directly at the hospital.

The direction of the external wound was transverse, and its length was about an inch. The edges were not contused. The cornea was flaccid, and had been ruptured at its inner part, the rupture appearing to have extended into the sclerotica, through which the choroid, iris, and part of the vitreous humour protruded. The whole of the organ was suffused with blood, apparently from the wounded choroid.

He complained of much pain in the eye—the pulse was weak and feeble, and the skin was cold. He was placed in bed, and cold lotion was applied. He vomited soon afterwards.

At 5, p.m. three hours after the accident, he had vomited some blood, supposed to proceed from the frontal sinus or æthmoidal cells. The pulse being strong, venæsection was ordered, but was prevented by another attack of vomiting, which occasioned some subsequent collapse.

6, p.m. *V.S. ad* ʒxviij.

*H. salin.* c̄ *Vin. a. tart.* ʒss. 6*tis horis.*

10th. Had pain in the eye last night. He vomited a small quantity of blood. There are no unpleasant symptoms today. Bowels not opened since his admission.

*H. sennæ q. s.*

Nothing worthy of notice occurred till the evening of the 12th, when the patient complained of pain in the head and of throbbing, intolerance of light,

and tendency to sickness. The bowels were confined.

*V. S. ad* ʒxij. *H. sennæ.*

The blood was much buffed and cupped. On the 13th the pain in the head had abated, and the pulse was 60 and soft. The bowels were still disposed to be confined. Their condition was, of course, attended to.

On the 19th, more pain in the eye and in the forehead.

*Hirud.* vj. *tempori.*

21st. Cornea clear—iris drawn inwards—blood effused into the upper parts of the eye—protruded parts slightly ulcerated. The wound in the integuments is closed.

*Protrusion touched with arg. nit.*

22d. More pain in the eye.

*Hirud.* viij. *tempori.*

The patient was now put slightly under the influence of calomel.

Feb. 2d. Some pain in the eye—less vascularity of the conjunctiva. The iris is clear, but the pupil is distorted and drawn towards the inner canthus. A small ulceration where the original wound was situated.

On the 6th he was made an out-patient, and a lotion of sulphate of zinc was prescribed. In the course of a short time he discontinued his attendance, and the ultimate condition of the eye is unknown.

Here the present report must conclude. The cases are possessed of practical interest, and derive, as we remarked, an increased importance from the circumstance, that, taken under the immediate inspection of Mr. Hawkins, the acknowledged zeal and attention of that gentleman are a guarantee for their strict fidelity. We trust that on future occasions we may have it in our power to present a more complete and satisfactory account of the facts that occur in Mr. Hawkins' practice, of the treatment he employs, and the views that he adopts.

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## IV. HÔPITAL DE LA CHARITE'.

[*Clinique of M. Bouillaud.*]

### RHEUMATISM.

Active and repeated depletions, both local and general, are invariably employed by this physician, against all inflammatory articular affections. There was a man, lately in the wards of this hospital, who was not cured, till after the tenth bleeding; and at the same time, there was a second case of a patient who had been under treatment at another hospital for several months without any benefit—two large bleedings in the course of one day (the disease having assumed an acute character) almost at once brought him into a state of convalescence.

[Our readers may judge for themselves of what the reporter of the La Pitié Hospital sneeringly denominates "le traitement de la Charité."—*Ed.*]

### CHRONIC ICTERUS.

Three out of seven cases recently admitted into the wards, died. In two of these cases, the ductus communis choledochus, was found completely closed by biliary calculi; and in the remaining one, the liver presented extensive tuberculous deposit.

### TYPHUS FEVER.

A young man aged 19, of a sound constitution, residing in Paris for the two preceding months, was admitted under the care of M. Bouillaud on the 29th June.

For five days he had been ailing with headach, general feebleness, and repeated shiverings. He was bled from the arm; and on the following day, M. B. visited him. There was considerable prostration; his answers were slow, and confused; his breath very offensive, tongue dry; he had much thirst and a disagreeable bitter taste in his mouth. Pulse 70, of moderate strength; respiration natural; abdomen soft and not tender on pressure. No information as to the state of the bowels could be obtained; anorexia, but no nausea; intense headach.

*Forty leeches to the abdomen; and soothing demulcents ordered.*

July 1st. No amendment.

*Thirty leeches to the abdomen.*

2nd. Less headach; diarrhœa; great

prostration; pulse from 56 to 64. Stools pass from him unconsciously.

*Thirty leeches behind the ears; cold affusion to the head.*

3rd. During the employment of the cold affusion, high excitement, succeeded by coma, came on. This stupor continued until death; a petechial eruption on the abdomen and thighs.

The same treatment ordered to be persisted in: also a few grains of tartar emetic to be mixed in a ptisan; and a dose to be given occasionally.

5th. He died.

*Dissection.* Abdominal viscera healthy —intestinal follicles not affected. Well marked appearances of minute injection, and of congestion of the encephaloid— the medullary substance when cut, exhibiting an infinity of red points from which the blood oozed out freely in large drops; the pia mater was so highly injected in some places, that it seemed as if blood was actually effused. Considerable quantity of serum in the ventricles.

The reporter (M. Pelletan) of the preceding case admits that the cephalic character, or type of the disease, was not sufficiently attended to, at its commencement; the physician having supposed that the primary seat of the mischief was in the intestines; which however on dissection proved to be quite sound.

An apt example of the Sangrado practice of the Broussaists. Our waggish friend at the La Pitié should call it "le traitment de la non-Pitié," rather than "de La Charité;" for certainly there is a want of pity, and no charity, in such insatiable blood drawing.—*Ed.*]

### INTERNAL USE OF CROTON OIL.

Various expedients have been employed to counteract the irritating qualities of croton oil, and a multitude of formulæ recommended for its preparation; but we have generally found the simplest method, the best; viz. that of giving a drop or two in a spoonful of ptisan. The pills of M. Caventon, we have also tried extensively, and we on the whole approve of them; they are prepared thus. Take of croton oil, five drachms; of soap-lees, two drachms and a half; mix and rub them well together in a glass mortar, until a soap is formed, which is then to be made into moulds. But after all, neither these pills, nor any of the other formulæ insure so speedy and brisk an operation as the same quantity of the oil swallowed with a spoonful of liquid. It is well known that it generally produces a feeling of heat in the throat, extending to the pit of the stomach; also nausea, and sometimes vomiting; but this effect is more frequent in women than in men. It has been given repeatedly in cases of gastro-intestinal inflammation, and seldom has it caused any accidents. The diseases in which its internal use has been especially beneficial, are painter's colic, and severe cephalalgia; the speedy relief it often brings to the former, is gratifying alike to the patient and to the physician. One of the patients who was treated with it, had suffered repeated attacks before, and had been subjected to what is called "the La Charité treatment," [We presume this alludes to the leeching, and leeching, and leeching again, recommended by some of the disciples of Broussais.—*Editor.*] against a repetition of which he now vehemently protested. A dose or two of croton oil cured him. The fumes of copper will sometimes occasion all the symptoms of genuine colica pictonum:—a similar treatment should be pursued. We deem it unnecessary to report any of the cases, which exhibit the utility of croton oil against obstinate headaches. It is indeed an admirable remedy, and often works like a charm.

### ACUTE RHEUMATISM, PLEURO-PNEUMONIA AND PERICARDITIS.

A young man, aged 18, admitted under the care of M. Dalmas on the 28th June, 1833. He is of a delicate and lymphatic constitution, and, of late, has been obliged to sleep in a damp chamber. Three days ago, he was suddenly seized with severe rheumatic pains in his joints, more especially in the knees, and with general pyrexia. These symptoms have ever since been

on the increase. The knees are now swollen, inflamed, and cannot be moved without causing great pain; pulse full, strong, and frequent.

*Prescript.—Mel. boraginis. Pulv. Doveri*, gr. iij.

*V. sectio, ad* pat. iij.

29th. Same as yesterday.

*Rep. V. sectio.*

30th. The pains are now fixed more in the upper extremities, and especially in the shoulders.

*Mel. borag. P. Dov.* gr. viij.

*V. sectio.*

July 2d. A sudden change this morning. The articular pains have left him entirely, and there have supervened great oppression, hurried and painful breathing, sharp pain at the lower part of both sides of the chest, increased by the efforts of a dry and teasing cough, and most severe at the left bosom. Auscultatory symptoms of pleuro pneumonia on each side.

*V. sectio. Mel. borag. Hirud.* xv. *mammæ sinistræ.*

4th. Percussion sonorous over the upper and back part of the chest; at and below the level of the spine of the scapula distinct œgophony, absence of the respiratory murmur, and dulness on percussion. The pneumonic symptoms have abated.

*A blister below the left mammæ—diuretic medicines.*

9th. The pleuritic effusion on both sides has sensibly diminished. Bled to two cupfuls.

11th. The use of gentle purgatives (ol. ricini) commenced.

13th. Twenty leeches over the heart.

17th. Bruit de soufflet heard over the region of the heart. Ptisan of digitalis—twenty leeches on the præcordial region.

19th. Sinapisms to the calves—purging mixture—blister over the heart. Malaga wine allowed.

20th. Bruit de soufflet no longer heard. An evident outward fulness of the cardiac region. Dulness on percussion over a great extent.

26th. Bruit de soufflet again heard to-day, for the first time since the last report; the præcordial fulness has abated; the extent of the dulness diminished.

28th. No longer any apparent oppression; a dull, deep-seated pain felt at the cardiac region—it is increased by lying on the right side. When the chest is dilated by inspiration, it is observed that there is a vaulted fulness over the heart, and the intercostal spaces seem somewhat widened, and are rather more prominent than at other parts. The contour of the left side of the chest, measured under the mamma, is half an inch greater than that of the right side. A well-defined and well-marked dulness, on percussion, extends over all the vaulted portion. The pulsations of the heart are frequent and strong, but not loud; they can, however, be heard distinctly on the right side. A very distinct bruit de soufflet over the heart and the carotid arteries. No purring tremor felt. Pulse 102, strong and hard. Percussion and auscultation announce that there is still a pleuritic effusion. Respirations 28 in the minute. The patient went on improving until the—

31st. When, in consequence of some imprudence in diet, the pulse rose to 114, beating full and strong, the breathing was oppressed and quick, and the general expression of the patient much worse.

Aug. 4th. Respiration easy, and numbering only 20 in the minute—pulse 96, more soft and calm—bruit de soufflet less distinct—dulness on percussion not so extended, and the arching or prominence of the cardiac region has fallen considerably. Upon measuring the two sides of the chest, the left is found to be only three lines larger than the right. The decubitus is much more easy than hitherto.

7th. The symptoms have been gradually on the decrease since last report. The bruit over the heart and arteries is now very feeble; the pulsations of the heart, although much more tranquil, are still rather dull, and, as it were, very deep-seated; and if the ear be applied for some time with great attention, a sort of gurgling noise, like that of the waving of water, may be heard;

—a phenomenon probably owing to the diminution of the serous effusion.

12th. Discharged well—only weak.

*Reflections.*—The preceding case illustrates well these particulars. An erratic, acute rheumatism, of eight days' standing, suddenly recedes, and immediately all the symptoms of a double pleuro-pneumonia set in. In the progress of the case, without any sufficiently-appreciable cause, pericarditis supervenes; the inflammatory symptoms are quickly followed by those of effusion into the pericardium—there is pain, great extent of dulness on being percussed, outward fulness or prominence, loud bruit de soufflet over the heart and the carotid arteries, tumultuous action of the heart, extreme anxiety, and even delirium. On the 4th day, the effusion was at its acmé, and we find that the bruit de soufflet had disappeared. On the ninth day, the symptoms decreased in severity; absorption had probably commenced; the bruit de soufflet could be heard again; and from this date the patient went on progressively to a complete recovery.

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## V.

## THE PRECEPTOR.

### Clinical Lectures.

Dr. Stokes.—In this department of our review, we should do injustice to a meritorious member of the profession, if we omitted to notice the clinical lectures of Dr. William Stokes, delivered at the Meath Hospital, Dublin, and published by our active and zealous contemporary—the London Medical and Surgical Journal. Although clinical lectures are more susceptible of analysis than those that are merely elementary, yet we shall notice only the more prominent facts and features of these bed-side observations.

1. *Phthisis.* Dr. Stokes makes some useful remarks on the hectic fever which so often attends phthisis, even before the tubercles break down, and matter is discharged from the mouth. Extensive tuberculation in the lungs will, in fact, occasion hectic fever in many cases; while a vomica, the greater portion of lungs being sound, will present no hectic at all. Dr. S. has been giving a trial to the chlorine inhalations, so eulogized by M. Cotteran in Paris; but, as might be easily predicted, none of those cures of actual phthisis, as vaunted by our Parisian cotemporary, have been witnessed in the Meath Hospital. In some cases, it *appeared* to do some good—in far more it did positive mischief. All those remedies which check the expectoration, do more or less harm, by increasing the inflammatory action in the surrounding tissues of the lungs. In a case of gangrenous abscess in the lungs, great benefit was obtained from the chlorine inhalation.

2 *Pleuritis Biliosa.* Dr. Stokes alludes to a case in the hospital, where effusion took place in the right pleural cavity after inflammation. The side was bulged out and the intercostal spaces enlarged, with absence of respiratory murmur, resonance of the voice, and vibration when speaking, as felt by the hand on the opposite side. The patient was in a low grade of health, and the complaint was complicated with gastric symptoms, so as to present what the older authors would have termed bilious pleurisy. Leeches to the epigastrium and to the affected side, were producing beneficial effects.

We perceive that Dr. Stokes uses iodine in dropsy. He cautions his pupils against neglect of the bowels in dropsical patients, however weak or depressed they may be, since fæcal accumulations always increase the anasarcous swellings.

3. *Dysphagia.* An interesting case of dysphagia is related in these lectures, Dr. Stokes having first enumerated the various causes that produce this distressing state. The case is, abstractedly, this:—Edward Lynch was attacked ten days before admission, with pain in the back, and stitches at the lower part of the sternum. These continued for a week, when he first felt a

soreness on swallowing, which increased so much, that on the following day he could swallow no solids whatever, the attempt producing great pain, and a sense of weight, followed by hiccup and vomiting. He has frequent eructations with relief of the sense of oppression. Since the occurrence of the dysphagia he has lost his appetite; there is some epigastric tenderness; bowels costive since the commencement of his illness; his general appearance is that of a man labouring under low gastric fever. On examination, by the stethoscope and percussion, no morbid phenomenon could be detected, *except that the respiration over the whole of the right lung was feeble as compared with that in the left, no sound continuing clear on percussion.* On the day after admission, Mr. Porter passed a probang without meeting any obstruction, but the patient complained of soreness at the seat of stoppage.

Before the probang had been used we considered that the irritation was very low down, from the statements made by the patient himself. This morning he says he feels better, but as yet he has not attempted to swallow fluids. We have observed, that some minutes after he has swallowed a morsel of food, symptoms of irritation of the stomach come on, he begins to eructate, and goes on in this way until he gets up a small quantity of frothy fluid."

Dr. Stokes enters again on the various causes of dysphagia, examining them seriatim, and trying whether or not they will bear on the above case. He comes at length to the conclusion, or rather conjecture, that the cause is either acute œsophagitis, or disease of the cardiac orifice of the stomach, or both. We were inclined to agree with him; for the sudden advent of the complaint, and the no less sudden amelioration, while in hospital, seemed to negative the idea of there being any tumor or other mechanical obstruction to the deglutition in this case. The treatment was leechings, iced water, blisters, and purgative injections. In a subsequent lecture, the true state of things was revealed by the knife, for the patient died. Immediately before this event, the patient vomited a large quantity of blood. On examination the cause of the dysphagia was found to be a small aortic aneurism, the size of a walnut, which had perforated the œsophagus, and pressed on the opposite side of the tube, where the lining membrane was inflamed and extensively ulcerated. The cardiac portion of the stomach was inflamed, and the aorta shewed marks of extensive recent disease. The case is highly interesting.

4. *Diptherite.* This was a man admitted on the 10th of August, labouring under double pneumonia—intense and neglected inflammation of both lungs. He was treated by venesection, leeches, and antimony. He was decidedly relieved of the pneumonia. He took eighteen grains of emetic tartar in three or four days, and bore it well. On the fifth day, however a new train of symptoms appeared. His cough assumed a laryngeal character, with difficult articulation, laborious breathing, and soreness in the throat. On examination, several thick patches of dense white substance were seen on the tongue, velum, and back of the pharynx. The antimony was discontinued —a large blister was applied to the throat—while the exudations were freely brushed with the strongest muriatic acid. In two days he was improving rapidly, the patches being nearly detached. Some relapse, however, occurred, and the same remedies were again administered, a brisk purgative being given. Recovery then took place.

Dr. S. has made some practical remarks on this case. He observes that the disease is a dangerous one—because, if the inflammation extends to the larynx, the patient may die with all the symptoms of croup. He strongly recommends the muriatic acid, as originally prescribed by M. Bretonneau.

5. *Laryngeal Phthisis.* We were much pleased with Dr. Stokes' observations on this case; for we quite agree with him, that it is very rare to find ulceration of the larynx unaccompanied by disease of the lungs—and moreover we have seen several cases which were

pronounced by able practitioners to be laryngeal disease or phthisis, which proved on dissection, to be phthisis pulmonalis, without any laryngeal disease at all. We should not, therefore, except with great caution, exhibit mercury in such cases—and still more caution should be used before we have recourse to tracheotomy.

"I remember (says Dr. S.) having witnessed a case in which an error of this kind was committed; the patient was a gentleman, labouring under an inflammation of the mucous membrane of the larynx of considerable standing, which owing to some cause was much exacerbated; he had been mercurialized for it, and when I saw him, he was like a person in the last stage of consumption. He had great rapidity of pulse, emaciation, hectic, and profuse expectoration. On applying the stethoscope, in order to satisfy myself, I found several large caverns in the substance of the lungs, which must have existed there for a considerable time."

Dr. Stokes remarks, that the stridulous breathing, in laryngeal disease is unfavourable to the exercise of auscultation. But it does not effect percussion. If, therefore, we meet with a patient who has been labouring for some time under laryngitis—who has acceleration of pulse and wasting of flesh—and who, on examination, presents dulness of sound in the upper portions of the lungs, we may be almost certain that tubercles exist there. In most cases we shall find that pulmonary symptoms preceded the laryngeal affection.

6. *Dropsy.* Dr. Stokes alludes to a case in the hospital where dropsy succeeded to several inflammatory attacks in a young woman. After bleeding and other necessary evacuations, the physician was using iodine, both internally and externally. The internal form is what Dr. S. denominates the "*iodine mineral water*," composed of one grain of pure iodine, and eight grains of the hydriodate of potash to two pounds of distilled water—which quantity is to be taken in 24 hours. Under this plan the abdomen was reducing in size, and the patient amending. Dr. S. strongly recommends iodine in dropsical affections. We believe we were among the first to introduce this medicine to the notice of the profession, in consequence of a remarkable case that was treated in this manner by Dr. Gordon, Dr. Johnson, and Mr. Guthrie, with complete and permanent *success*.

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## VI. SYMPATHY.

Dr. Stokes, in one of his clinical lectures, now publishing in our contemporary, the Medical and Surgical Journal, makes the following remarks on the subject of sympathy, which are, generally speaking, very judicious, though not entirely free from animadversion.

"We come now, gentlemen, to the consideration of the laws of sympathy. When we consider the system in a state of health, we find that the effects of impressions made upon one organ are rapidly transmitted to others. We observe, too, that excitement of one organ produces excitement in another and a distant one. These are the sympathies of health; and the organs of their transmission are supposed to be the nerves. Now, in disease we see the same phenomena; and Broussais maintains, that the morbid sympathies only differ from the healthy in this—that they transmit more irritation, or, to use his own words, a mode of excitation repugnant to the vital laws. It is plain, that if by the latter expression he means anything more than a plus degree of the natural excitement, he is departing from the principles of his doctrine.

Broussais divides the sympathies into two classes,—sympathies of relation, and sympathies of organic life. What does he mean by this? Modern physiologists have divided the functions into two classes,—those of animal and those of organic life. The centre of organic life is the great sympathetic nerve; the central organ of animal life is the brain and spinal cord. To give an example of sympathies, let us take a case of inflammation of the mucous membrane of the intestinal tube. During the course of the disease the patient gets headach—

here is a sympathy of relation; next, we observe convulsions—here is another effect of sympathy; he becomes delirious—another similar result of the same cause; and all these are sympathies of relation. Let us go further. The same patient, as the result of an enteritic attack, gets fever, heat of skin, excitement of the circulation, and jaundice—all these are organic sympathies. Again; during the course of the same disease the patient may get an attack of cough and a difficulty of breathing—here is another organic sympathy, for the respiratory organs are affected. When the sympathies of relation are in excess, the results of that excess may vary according as they are reflected on the nervous system; and if these be very violent the person may die of the excitement of the organ of animal life. If the sympathies of organic life happen to be excessive, the patient may be destroyed by the transmission of disease to other viscera: he may die of disease of the lungs or liver, or some other organ. This may tend, in some degree, to explain the laws of sympathy. On this subject Broussais has announced propositions too numerous to be laid before you in the course of a few lectures. To one of them, however, I would particularly draw your attention, namely, that sympathetic functional derangement when excessive and long continued may ultimately become real, or, in other words, that the affection of an organ, when persistent, may, though at first functional, afterwards become organic. Take the example before given, of a patient labouring under enteritis, with severe headach. If the disease continues for a long time the brain may become inflamed, and the patient die of cerebral disease. Two conditions, therefore, may produce the conversion of sympathetic irritation into real disease, intensity of symptoms and long continuance.

Let us take a few examples of the first class of diseases, or those which arise from an intensity of sympathy. A patient gets an attack of hepatitis, or pneumonia, or bronchitis; the action of the heart is disturbed or excited, the disease continues with undiminished intensity, and the heart, which was originally only affected by sympathy, finally experiences an organic change. Again; a person is seized with severe gastro-entertitis; during the progress of the disease his breathing becomes hurried, he gets cough and other symptoms of a pulmonary affection, and finally, intense and fatal pneumonia. A child labours under irritation of the brain; this produces vomiting, and the vomiting may ultimately terminate in gastritis. On the other hand, we may have hydrocephalus supervening on an intense gastritis. Again; to take instances of disease arising from sympathy, with chronic and long-continued affections, how often do we read of persons, having constant headach from chronic gastritis, finally dying of disease of the brain. In the same way a gastritis may in the course of time, bring on hepatitis, or perhaps disease of the lung, forming what has been termed *dyspeptic phthisis*. How frequently is morbus cordis the result of long-continued pulmonary affections. Does not long-continued painful menstruation frequently end in organic disease of the uterus? These are examples of persistent sympathetic irritation terminating in organic disease, and tending to establish the great rule, that long-continued functional leision is closely connected with that process which produces organic change. *It is, therefore, unscientific and dangerous to prescribe, on all occasions, for a chronic functional affection, on the supposition that it is only such; it is often safer to consider it as a disease of the organ itself.* Let us see how this is borne out by facts. It is now admitted by the most enlightened pathologists, that in cases of mania which have been going on for years, there is always more or less of archnitis or of disease of the substance of the brain, and that the patients die with symptoms of a crerebral affection—as convulsions, paralysis or coma. Let a patient labour for a considerable space of time under severe palpitations, and the result may ultimately be disease of the heart; or let him be dyspeptic or asthmatic, and he will commonly get a gastritis or organic disease of the lung."

In the passage which is marked in italics, by our author himself, we conceive that the position is not well stated. We think it ought to run thus:—"*it is dangerous to prescribe, on all occasions, for a chronic functional affection, on the supposition that it is* SYMPATHETIC; *it is often safer to consider it as a disorder or disease of the organ itself.*"

How often have we to lament the mistake which is daily made by practitioners, in respect to dyspeptic phthisis! Cough and other symptoms of pulmonic affection are attributed to disordered digestion, till the disease of the lungs is irremediable! The term "DYSPEPTIC PHTHISIS," annually consigns several thousand victims to an early grave in this country!

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## VII. MEATH HOSPITAL, DUBLIN.

### CASES OF INTERNAL ANEURISM.*

These cases are intended to exemplify the symptoms, and the want of symptoms, that characterize aneurism of the commencement of aorta. They are also brought forward for another purpose, to which we shall allude when we have related the details. As our object is to communicate, as far as a journal can do so, that practical information which is only acquired by the actual study of cases, we will give as complete and concise an account of the prominent features of the present facts as their value may require and our limits will permit.

CASE 1. *Aneurism of the aorta opening into the œsophagus—symptoms chiefly those of dysphagia.*

E. Lynch, æt. 26, a shoemaker, of intemperate habits, admitted into the Meath Hospital, March 19th, 1833.

Has eructations, about every five minutes of a frothy watery fluid, sometimes acrid and sour—difficulty of deglutition, the attempt always producing great pain and oppression at the lower part of the sternum, followed by hiccup and by vomiting—loss of appetite—tenderness over the epigastrium—and constipation. Being desired to swallow a morsel of bread, he did so, but said it stopped in the passage; after repeated draughts of whey it passed down, but not without a good deal of spasm, resembling hiccup. It was not vomited.

On examination, the chest sounded well on percussion every where, and the stethoscope discovered no sign of disease in the heart or aorta. The action of the heart was a little stronger than natural, but the sounds were healthy. Respiration *feeble*, but pure in the upper part of the right lung; pulse about 90.

The symptoms had commenced ten days previously with pain in the back, stitches in the chest, and constipation. The difficulty of deglutition had appeared only two days before his admission.

On the 21st, Mr. Porter, at the request of Dr. Stokes, introduced a probang into the œsophagus, without encountering any decided obstruction. He was sensible, however, that the instrument passed over a soft tumour. The case seems to have been treated as one of gastritis, and leeches to the epigastrium, ice, and an anodyne procured a temporary and slight relief. As our object is mainly to display the symptoms and the course of these cases, we may pass with a cursory notice the items of an ineffectual treatment.

On the 23d, the patient complained of pain in the spine of the right scapula, occurring seldom, and generally at the end of a deep inspiration. It imparted the sensation of the scapula being lifted up. This particular symptom was mitigated by a blister. On the 26th he made an effort to get down some tea; this produced great distress, and was followed by hiccup, retching, and vomiting of a large portion of it.

On the 27th he complained of weight in the centre of the chest, and has frequent suffocating cough. In an attempt to swallow, he feels as if something stopped the passage, and prevented any thing passing up or down; this stops his breathing also, and subsides suddenly.

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* Dublin Journal, Nov. 1833.

Whilst speaking, a severe fit of retching came on, which continued several minutes, and he threw up some mucus slightly tinged red. He then swallowed a few sups of drink, but immediately rejected about an ounce with the same coughing and eructation.

At 4, p. m., he had an attack of cough and of vomiting; he threw up a pint of florid blood, and immediately expired.

*Dissection.* A large coagulum filled the stomach. On slitting up the œsophagus, a clot, much larger than a pigeon's egg, and covered only by the mucous membrane, was seen projecting into it. Its situation was nearly three inches from the cardiac extremity. The mucous membrane had given way by ulceration in one spot, and thus was furnished the blood that filled the stomach and that which had been vomited.

"On opening the aorta, the pathology of aneurism, as connected with acute arteritis, was beautifully illustrated. The lining membrane was of a bright crimson or carmine colour, varied with small spangle-like patches of a paler and more opaque tint. This vascularity resided principally in the lining membrane, for on stripping off a portion of it, the fibrous tissue, although evidently inflamed, was much paler. The patches above-mentioned were caused by depositions of a *soft*, *white*, *cheesy substance*, which were either in the lining membrane or between it and the fibrous coat; it came off attached to the lining membrane.

There were three aneurisms in different stages of progression; one, the largest, communicated with the clot, which had burst into the œsophagus; the opening into the aorta would admit the point of the little finger. Another, within about half an inch of the former, was about the size of a hazel-nut, its opening into the aorta being about the diameter of a crow-quill; its internal surface was smooth, as if lined by the inner coat of the vessel; the middle coat terminated abruptly by a thick cellular edge at the opening, and its external covering seemed to be formed of the cellular coat together with the pleura. The third was only in its commencement; a slight deviation from the level of the lining membrane was seen in the centre of one of these opaque spots, under which the fibrous coat was thinned and beginning to be absorbed.

The large tumour had made pressure through the œsophagus on the right bronchus at its posterior part, and thus caused the feebleness of respiration observed during life in the right lung.

The lungs were healthy: the heart paler and softer than natural."

It is to be regretted that the scarlet appearance of the aorta is not described with more accurate minuteness. The distinction between the colouration of staining and that produced by actual arteritis, is so doubtful and so difficult, that the practised pathologist hesitates to admit a statement unsupported by convincing evidence.

CASE 2. *True Aneurism of the Ascending and Transverse Arch of the Aorta, bursting into the Pericardium—Symptoms of Bronchitis.*

Pat. Walsh, æt. 26, a carman, of intemperate habits, admitted into the Meath Hospital, July 23, 1832.

"Face puffy and tumid; neck much swollen, apparently from serous infiltration; the jugular veins turgid and tortuous; there is no œdema of the extremities; he has frequent, short, bronchitic cough, with frothy expectoration, and complains of stinging pain in the right shoulder, shooting down the breast, and frequently catching his breath; the cough and dyspnœa are always worse at night. Sleep bad, broken, and accompanied by frightful dreams. Appetite very good; some thirst; tongue clean and moist; bowels regular; pulse 100 and equal, perhaps a little more feeble in the right arm than in the left; slight pain on pressing the larynx, and some difficulty of swallowing, which he attributes to the tumefaction of the neck.

*Stethoscopic phenomena.*—Impulse of the heart heard very loudly over the entire chest, but no 'bruit de soufflet' discoverable in any part of it. The anterior portion of the chest sounds dull generally, but particularly in the right subclavian region, where there is feeble

respiration, and some sonorous rale. In the right acromial region there is distant mucous rale, with tracheal respiration; over the whole right side respiration is feeble; it is puerile over the left lung; posteriorly the chest sounds clearer. On laying the hand upon the chest, no increase of action in the heart can be perceived."

He states that he has had an habitual short cough for the last four years, but that within the last ten days it has become greatly aggravated. He has also been subject to dyspnœa on exertion, and palpitations for the same space of time; he never spat blood, nor knows he any cause for his ailment, unless a fall on his right shoulder some years ago.

The general symptoms were obviously those of disease of the heart or the aorta, attended, as it commonly is observed to be, with bronchial inflammation. The diffused cardiac impulse and the loud sound (for Mr. Porter's language is not critically accurate) detected by the stethoscope must confirm the suspicion which the symptoms would create. The feeble respiration in the right side of the chest, the sonorous rale, and the dulness on percussion might indicate, if taken by themselves, imperfect consolidation of the lung from inflammation, or compression exercised by some unnatural growth. The latter idea would be countenanced and strengthened by the general symptoms of aneurism, and the stethoscopic examination of the heart. We do not prefer these remarks with the paltry affectation of superior acuteness, but in order to display the process of reflection that would occupy the mind of the well informed physician and the rational stethoscopist.

The patient remained in the hospital five days, and was benefited by the judicious means that were employed. His symptoms soon returned, and he entered another Institution. After remaining within it for a fortnight, he suddenly dropped dead in a moment of exultation.

*Dissection.*—"On opening the thorax, a large tumor presented itself, extending from the diaphragm to the level of the lower border of the first rib on the right, and stretching across the upper bone of the sternum to its left side, where it terminated. The vena innominata crossed the front of it, and must have suffered compression, so closely did the tumor approach the sternum. The tumour was evidently formed of the pericardium, into which the aneurism had burst by a small valvular opening, of size just sufficient to admit a quill, and thus the bag became distended with coagulated blood and serum. The aneurism *seemed to be a true one*, and to be formed of the aorta dilated as far as the origin of the left subclavian artery; the dilatation commencing at the very root of the vessel, where it measured three and a half inches in diameter, and gradually diminishing to its termination. The lining membrane could be traced throughout, and under it was much soft ætheromatous substance. The coats of the artery were in many places become extremely thin, and the right lung greatly compressed, especially at its superior part, adhered throughout to the sac."

CASE 3.—*Aneurism of the Aorta, passing between the Œsophagus and Trachea —Symptoms of Laryngitis.*

On the 11th Aug. 1827, Mr. Porter was called to see a drunkard, æt. 24, a nailor, with the view of his performing tracheotomy for acute cynanche laryngea. He was supported upright upon his bed of straw—his arms extended—his hands clenched—his chest heaving convulsively—his face pallid and swollen—his lips transparently blue—his eyes staring, and his entire body covered with profuse perspiration. His respiration was sonorous and laboured, but the trachea was not moved rapidly up and down the neck. Pressure on the larynx externally gave no pain whatever, and on passing the finger into the fauces, the epiglottis could be felt of its natural size and texture. The symptoms had already lasted seven days; and, doubting the nature of the case, Mr. Porter prudently postponed the operation. The patient expired in the course of the day, with every symptom of oppressed brain, produced by protracted strangulation.

*Dissection.* The larynx and trachea seemed perfectly healthy. The lungs did not collapse to the degree which they usually do; their cells were loaded with a reddish frothy mucus.

Between the trachea and œsophagus, just below the root of the neck, a small tumor was observed, which proved to be an aneurism of the arch of the aorta, springing from between the left carotid and subclavian, and seeming to involve the origins of both vessels. Its size was about that of a very large walnut, but with the sternum removed, and in the collapsed condition of the parts, it could not be ascertained, whether the pressure it must have exerted on the trachea was sufficient to cause suffocation and death. However, there was no other mode of explaining it.

The internal coat of the aorta exhibited a bright pink or rose tint, mottled with many specks of a paler hue, which were found to be soft and steatomatous depositions. The *opening* into the sac was smooth, but the sac was not cut into, nor was the structure of its walls examined.

Mr. Porter remarks that, although the aneurism must, apparently, have pressed on the œsophagus, he had never been informed of the existence of dysphagia.

CASE 4.—*True Aneurism of the Arch of the Aorta—Symptoms not obscure.*

The patient was a female, aged 34. There was a pulsating tumour occupying the inferior third of the neck, above the right sterno-clavicular articulation. The bruit de soufflet was heard distinctly over the chest, but more remarkably on the *left* side and over the *left* clavicle. The arteries of the *right* arm beat fully and strongly, those of the left comparatively feebly. The enumeration of the general symptoms is unnecessary, as they presented no peculiarity.

The patient died in three weeks after her admission into the hospital.

*Dissection.* If the heart presented any alteration, it was smaller and firmer in structure than natural.

The ascending portion and the arch of the aorta greatly dilated; its lining membrane inflamed, of a deep red colour, and easily detached from the fibrous coat underneath. Between these structures there were numerous specks or patches of a soft and white deposit, which separated with the lining membrane on tearing it off. The fibrous coat was also evidently inflamed, and of a rose pink colour.

Where the arteria innominata is given off, but distinct and separate from it, the communication existed between the aorta and the aneurismal tumour. It was sufficiently large to admit the little finger, round, perfectly smooth, and apparently covered by a prolongation of the lining membrane. The sac seemed to have been formed by a dilatation of all the coats of the aorta at this particular spot, and to determine the question as to its being *really a true aneurism*, the structures were accurately examined. The deposit already mentioned, as lying under the lining membrane of the aorta, was also seen throughout the entire extent of the sac, indicating that the same tissues existed in both, and that the aneurism was formed of a distended portion of the aorta apparently deprived of its elasticity."

The preceding cases are interesting to those who look upon Nature with a curious eye, and comparing symptoms with structural changes, investigate the order of cause and of effect. For our own parts, we confess that we prize such facts more highly than those laboured and ingenious speculations, which distract while they delight, and display the buoyant levity of fancy, rather than the solidity of matured understanding.

The object of Mr. Porter, in his remarks upon the cases, is, apparently, to attribute the occurrence of aneurism to loss of elasticity in the tunics of the artery, and that loss of elasticity to inflammatory action. The first of the positions will scarcely be disputed, but a glance at the proofs of the last may be permitted. Those proofs are of a double order—one depending upon symptoms—the other upon cadaveric alteration.

The proof from symptoms may be stated to be this—"the pains experi-

enced previous to the developement of those symptoms, which may be considered as more immediately occasioned by the aneurismal tumors." Did we feel inclined to trust our own observation and experience, we should say that the pain to which Mr. Porter has referred, has seldom existed prior to the commencement, or even in the early stage, of aneurism, but rather when the tumor has begun to encroach upon contiguous parts. Let us look at the phenomena of his own facts.

In the first case, the patient was attacked with pain *eighteen* days before his decease. On dissection, there were found three aneurisms, one of which had increased to such a size as to open by ulceration into the œsophagus, and to exercise a pressure on the right bronchus.

Does Mr. Porter believe that this was the product of eighteen days?

In the second case, there is no mention of the existence of the symptom.

The same remark is applicable to the third case.

In the fourth case, the narration is too ambiguous to allow any certain conclusion to be drawn. It is stated that a pulsating tumor had been noticed for a month, and that pain had been experienced from the commencement of the disease. If this and the appearance of the external tumor are intended by Mr. Porter to be considered synonymous, we think that the justice of the inference might be doubted.

From this critical review of the cases themselves, it may appear to the experienced portion of our readers, that the presence of pain is inconclusive evidence of the existence of inflammation. The second argument employed by Mr. Porter is the pathological condition of the vessels.

We may refer to numerous papers in this Journal, the object of which is to shew the difficulty involving the distinction of staining of the inner tunics of an artery from genuine arteritis. When, therefore, Mr. Porter appeals to the redness of those tunics as a proof of inflammatory action, we feel that it is almost equally impossible to agree with, or to differ from him. The prevalence of atheromatous depositions, and even ulcerations of the internal coat, may display the existence of inflammation as a consequence, but they do not satisfactorily establish its precedence as a cause.

In conclusion, we would observe that the symptoms and the nature of idiopathic arteritis are at present shrouded in obscurity. But it is not advisable to endeavour to remove it by hasty and by bold assumptions, which always confer additional perplexity on the questions they are intended to unravel and elucidate.

## II. CASES OF AMPUTATION IN SPREADING TRAUMATIC GANGRENE.*

We need scarcely inform the intelligent reader, that the propriety of amputating during the spreading of traumatic gangrene has excited, within these last few years, much difference of opinion among surgeons of talent and experience. Mr. Porter, actuated by a laudable desire to assist the profession in arriving at some rational and definite conclusions, has related in our excellent contemporary, some cases that occurred in the hospital to which he is attached.

The practice in question has been adopted in the Meath Hospital since the year 1818, and the facts will serve to shew, that the operation is not so fatal as has been usually imagined, and that, where it has failed, this has not been the effect of the invasion of the stump by mortification. Without any farther preliminary observation, we shall pass to the details of the cases before us.

CASE 1.—*Mortification of the Leg, from Rupture of the Posterior Tibial Artery—Operation unsuccessful.*

"March, 1820.—A man applied among the externs at the Meath Hospital, complaining of deep and intense pain in the right leg, occasioned by a severe blow inflicted on the back of it. On examination, there was no appear-

* Ibid.

ance of injury, no swelling, no discoloration, nor even tenderness on pressure. He scarcely exhibited the smallest lameness, and his case attracted very little attention.

Displeased at this neglect, he applied at other hospitals, at some of which he was regarded as an hypochondriac, and at none was the case deemed to be of importance.

About six weeks after his first application at the Meath, he felt something give way within the leg, which immediately began to swell. In the course of a few hours it had attained a great size, was pale, shining, and tense, yet retained the impression of the finger on pressure. His pulse very small and quick, tongue brown, he was thirsty, and had vomited several times, his face was pallid, and he had a wild, yet dejected expression of countenance. He was admitted into the hospital under the care of the late Mr. Thomas Roney.

On the following day matters had assumed a very different appearance; the leg was livid, cold, and insensible; the skin had burst, and a large coagulum of dark blood protruded; the lower half of the thigh was mottled, of a dark amber or brown colour, and emphysema had extended nearly to the groin. He acquiesced at once in the proposal of having the limb removed, which was performed by Mr. Roney, but the result was not fortunate. The irritative fever still continued; the stomach rejected every thing both of food and medicine, and he sunk and died about 36 hours afterwards."

The stump exhibited no appearance of gangrene.

On examining the limb the posterior tibial artery was found ruptured, and a large quantity of blood lay under the deep fascia. In this a ragged sloughy aperture was seen, and the limb was in all directions extensively injected with blood.

As Mr. Porter justly observes, it seemed as if the artery had been injured by the original blow, and had bled under the fascia, which subsequently gave way and burst, when mortification rapidly ensued.

In the second case the mortification succeeded to compound fracture of the leg. It appeared on the third day, and displayed the phenomenon of a line of blue vesication round the edges of the wound. On the eleventh day this was thrown off as a slough, and the broken bone was exposed. On the thirteenth day another line of vesication appeared. In the night the bad symptoms of vomiting, restlessness, and incoherence supervened. By the morning the mortification had extended for upwards of a hand's breadth, and the lower third of the thigh was discoloured. The general symptoms were those of prostration.

Amputation was now performed. He fell into a state of low muttering delirium, and died in twenty-eight hours.

The stump displayed no peculiarity of appearance.

CASE 3. *Fungous Tumor of the Periosteum—Gangrene—Amputation—Recovery.*

A labourer, æt. 42, admitted May 29th, 1833, under the care of Mr. M. Collis.

The middle of the leg was occupied by a tumor, apparently deep-seated, and from this a fungus, the size of a walnut, protruded through an incision which had been made. The tumor had existed for eight months;—the incision had been practised two months prior to admission.

On the fifth day after his reception, the fungus had increased to an enormous size, and looked black and sloughy. The discharge was offensive and profuse. The limb as high as the knee was mottled and œdematous. On this day, amputation was performed.

No attempt at primary union was observed, and for three weeks the man was in a critical condition. He required support by wine, and opium, and bark. In July an abscess was opened on the outside of the thigh, and this continued discharging for a month. The stump then slowly healed, but the patient was unable to be dismissed from the hospital till September.

CASE 4. *Compound Fracture—Gangrene—Amputation—Rapid cure.*

"June 5, 1833. John Reilly, æt. 30, a servant, received a compound fracture of the leg by a fall from a horse; the bone protruded considerably, and there was smart hæmorrhage. The fracture was reduced on the spot, the limb bandaged, and he was conveyed to hospital, a distance of ten miles. Notwithstanding the utmost care and the most judicious treatment, gangrene took place on the 13th, the leg was enormously swollen, very tense, of a dark purple colour, and mottled almost to the groin. The foot was swollen, œdematous, and cold; the wound in a state of slough. The operation of amputation was performed by Mr. Roney very high up above the knee, but so rapidly had the disease spread, that the incision was made through cellular tissue, loaded with a reddish serum. It is unnecessary to detail the daily reports of this case, which went on more prosperously than happens in the majority of similar cases. An abscess formed on the right side of the stump on the fifth day after the operation. There never was any appearance of union by the first intention, but the stump granulated well, and healed kindly from the bottom. When discharged from the hospital, on the 12th of August, (within two months after the limb had been removed,) the stump was completely healed, and the bone admirably well covered."

CASE 5. *Simple Fracture of the Leg—Gangrene—Amputation—Death from Phlebitis of the Stump.*

The patient, a powerful man, received a severe simple fracture of the leg, in a state of intoxication. Two days afterwards, the limb was enormously swollen, tense, and elastic—its colour, as far as the knee, of a deep brown, and the foot quite cold. Mr. Porter performed amputation. The following are the notes of the examination of the limb.

"There was an oblique fracture of the tibia fully six inches in length, terminating in a very sharp point, about four inches above the ankle joint, and comminuted fracture of the upper end of the fibula, where it was articulated to the tibia. The limb generally was gorged with blood, the fibres of the gastrocnemius and soleus muscles being separated into small bundles by the infiltration. A vast quantity of blood also lay between the soleus and the fascia that lies behind the posterior tibial artery, the source of which could not be discovered by injecting water into the vessels. The anterior tibial nerve, where it passes round the head of the fibula, was completely torn through. The cellular tissue of the limb was loaded with a semigelatinous serum of a red colour. The* knee joint was completely filled with a fluid blood, although there was no lesion of the synovial membrane."

Symptoms of low fever, and of great irritability, set in on the fourth day. On the 8th of February the patient died.

*Dissection.* Inflammation, with the presence of lymph and of pus in the femoral vein. A collection of fetid purulent matter on each side of the bone. No attempt at granulation.

No mention made of the condition of the viscera.

CASE 6. *Compound Fracture of the Leg—Gangrene—Amputation—Recovery.*

Anne Reynolds, æt. 27, admitted Feb. 27th, 1832, under the care of Mr. M. Collis.

There was a compound fracture of the right leg, with protrusion of the bone about a hand's breadth above the ankle. On the fourth day the foot and the leg below the wound were insensible and cold—the edges of the wound were of a dark and livid tint—the discharge was profuse and abominably fetid. The leg to the knee was mottled, of a dark brown colour, œdematous, and boggy.

* "I have before me the notes of a case of compound fracture, in which a similar effusion appeared in the knee joint. Amputation was performed after gangrene took place, and the patient recovered. I do not, however, think myself at liberty to notice the case further, as it occured in another hospital."

Amputation was performed by Mr. Collis. The stump was very dry, scarcely a drop of blood even oozing from its surface.

Omitting the precise characteristics of the fracture, we may state that it extended into the ankle-joint. Very fetid pus surrounded the broken extremities of the bones. The subcutaneous cellular tissue was infiltrated with air and reddish-coloured serum, as high as the tibial tubercle.

The stump for some days appeared to do well. On the seventh it opened in its entire extent, discharged a quantity of very fetid pus, and it became evident that abscesses were formed. This discharge continued some weeks, and granulation proceeded but slowly. She was supported by broths and a liberal use of wine, and took quinine and opium. The wound was skinned over on the 28th April, and she left the hospital well on the 6th May.

CASE 7.—*Popliteal Aneurism—Ligature—Secondary Hæmorrhage—Gangrene—Amputation—Recovery.*

A man, æt. 37, was admitted on the 7th of August, 1831, with popliteal aneurism in the left ham. On the 13th, the artery was secured in the upper third of the thigh. On the 22d, blood issued from the wound, and five or six ounces were lost, before cold applications succeeded in arresting the hemorrhage. The bleeding recurred two or three times, when the wound was opened to the bottom, and a graduated compress introduced, and secured by an instrument of Mr. Crampton's, which pressed upon the compress without interfering with the venous circulation of the limb. The hæmorrhage was stopped, and the ligature came away on the 1st of September. The patient left the hospital with the wound quite healed, but complained of pain in the sole of the foot, the instep, and the heel, which was only relieved by gentle friction.

On Oct. 8th, he was re-admitted for swelling and stiffness of the knee, attended with intense pain, which were removed by the use of calomel and opium. Two abscesses successively formed in the leg, and on Nov. 9th, a dark-coloured spot appeared on the dorsum of the foot. On the 15th, the greater part of the foot, the great toe, the second, and a portion of the third, were affected with mortification. The remaining toes were of a dull purple colour at their extremities, and he complained of intense pain. From the roots of the toes to the instep there was a patch of a light brown colour, dry, and apparently below the level of the surrounding parts. which were œdematous, swollen, and deprived of their cuticle. The œdema reached to the knee. Amputation was decided on, and performed in the usual manner high up in the thigh.

The stump granulated kindly, and the patient left the hospital, cured, in six weeks.

Observations would rather tend to diminish than enhance the value and the force of the preceding facts. If a surgeon exists, whose prudence or whose fears have induced him to refuse to a patient affected with traumatic gangrene, the chance that an operation could present, we earnestly entreat him to read, to reflect, to be convinced, and to discard his fatal hesitation.

An exception may be taken to the term traumatic gangrene, or spreading mortification. A cursory glance at even the few cases adduced by Mr. Porter, will readily demonstrate that all are not of a similar description. In the last of those cases, a *black* spot appeared upon the dorsum of the foot, and six days elapsed before the instep and the toes were sphacelated, whilst œdema extended no higher than the knee.

How different are these characters from those of the fifth case. In that, a great amount of mischief had arisen in the space of two days from the reception of the injury. The limb was then found to be enormously swollen, elastic, tense, and of deep brown colour as high as the knee-joint. On dissection, the cellular tissue was loaded with a red semi-gelatinous serum. In the sixth case, the "gangrene" was fully established on the fourth day after the accident—the subcutaneous cellular tis-

sue was infiltrated with a reddish-coloured serum and with air—the bones were bathed in a fetid pus.

A little consideration will point out, that the majority of these cases were instances of diffuse *inflammation* of the cellular tissue, terminating with rapidity in its destruction, and in that of the integuments. The last case on the list of the candid and intelligent author of the paper is really one of sphacelus, probably dependent on deficient circulation. We differ from Mr. Porter in deeming this more formidable and more unfavourable than the former.

The length to which this notice has extended, is a proof of the importance we attach to the subject and the cases. We again recommend the latter to the serious attention of practical surgeons.

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## VIII. Lock Hospital.

### Some further Remarks on the best Mode of treating Gonorrhœa.

[By H. J. Johnson, House-Surgeon.]

In the last Number of this Review, I took the liberty of reporting some cases of gonorrhœa, and of offering a few remarks on that affection and its consequences. I suggested that the treatment commonly employed might be found, on examination, too stimulating in its character and too unfortunate in its results; and I proposed a plan which appeared more consistent with our ordinary principles of therapeutics, and seemed more successful when submitted to the test of practice. Since those observations were written, an additional, indeed an enlarged, experience has tended to convince me of the correctness of my opinions, and enabled me to add to the force, as well as to the number, of my statements.

I am satisfied, in my own mind, that the ordinary method of treating gonorrhœa is injurious and unsafe. When we look at the practice recommended and adopted, we may readily discern two opposite extremes, which seem to be surrounded with danger or with inefficiency. On the one hand, we perceive the almost indiscriminate exhibition of stimulants—cubebs, copaiba, turpentine, injections—on the other, the use of salines and antiphlogistic medicines. The former are constantly productive of immediate inflammatory complications—of chronic inflammation of the corpus spongiosum or the lacunæ—or of that intractible affection, long-continued pain in micturition, with little or with no discharge. The latter class of remedies are insufferably slow in removing the acute stage of gonorrhœa, and appear to favour, in a material degree, the subsequent occurrence of gleet.

Perhaps I may be thought censorious in my condemnation of these contrary methods of treatment. I would not willingly incur, or at least deserve, the imputation, and, therefore subjoin the particulars of some cases calculated to display their injurious effects. My limited space will prevent me from detailing more than two or three.

Case 1.—*Acute Gonorrhœa and Inflammation of the Corpus Spongiosum, treated by Turpentine.*

Thos. Harrison, æt. 42, a harness-maker, was admitted an out-patient Dec. 13th, 1833.

He had yellow, profuse and thick discharge—pain in micturition and on pressure, experienced along the urethra as far back as the anus—slight chordee—some induration, and tenderness on pressure of the corpus spongiosum. The bowels were freely open.

The complaint had existed for six weeks, and was worse rather than better. He had been treated by pills, containing turpentine, which, he said, "had very nigh killed him." So wroth was he against the person who prescribed the pernicious medicine, that he regretted he was not sufficiently rich to enjoy the luxury of prosecution.

I cupped this patient on the perinæum—and prescribed pills of calomel, with opium and emetic tartar at night, a draught of senna and of colchicum each morning, and diluents, with tragacanth, nitre, carbonate of soda, and Dover's powder during the day. He returned on the 17th. The pain in micturition and on pressure had almost

vanished—there was no chordee—and the discharge was thinner, and diminished in quantity. This rapid and marked amendment leaves no doubt on the mind of the reflecting surgeon, of the propriety of the practice under which it was observed.*

CASE 2. *Acute Gonorrhœa—Inflammation of Corpus Spongiosum—Bloody Urine—Pyrexia—treated by Turpentine.*

Charles Haisman, æt. 36, a smith, admitted an out patient, Dec. 10, 1833.

Yellowish discharge—pain in micturition, and after it, felt along the inferior surface of the urethra—tenderness in the same situation on pressure—induration of the corpus spongiosum—micturition itself frequent—bright blood occasionally mingled with the urine—pains in the loins. Tongue white and loaded—bowels confined—some pyrexia.

Complaint has existed for three months. The medical gentleman under whose care he has been, and whose last prescription he has brought with him, has ordered, and the patient has been taking, for the symptoms above mentioned, pills of sulphate of zinc and of turpentine.

I prescribed the same remedies for this as for the other patient.

On the 14th the urine was free from blood, but pain was still experienced in the loins and the urethra.

*C. c. lumbis ad* ʒviij. *Hirud.* x. *peni. P.* c̄. *omnibus.*

17th. Only very slight pain in micturition—discharge whitish, and diminished in its quantity. Other unpleasant symptoms gone.

*Rep. Hirud.* viij. *peni.*

The same observation seems applicable to this as to the former case.

CASE 3. *Acute Gonorrhœa with Inflammation of the Glans—treated by Turpentine.*

George Bowen, æt. 35, admitted an out patient, Dec. 17, 1833.

Profuse thin yellow discharge—pain in micturition experienced at the orifice—vascularity and inflammation of the surface of the glans. Tongue white and loaded.

Complaint has existed for three weeks and a half. For the first eight days he had no pain. He has been under the care of an eminent surgeon in Westminster, who has treated him by pills of turpentine. Is getting worse.

I ordered the patient calomel at night—senna with colchicum in the morning—and diluents with the combination of gum and of nitre, to which I have sufficiently alluded.

These cases have been mentioned because they have occurred within the last few days, and are not inappropriate illustrations of the extraordinary notions that would seem to be entertained of the nature of gonorrhœa and the principles of treatment. It may be urged that they are picked and unfrequent examples of the failure of stimulating remedies. I might deluge these pages with facts in refutation of such an objection. I cannot resist the advantageous opportunity of noticing a few, and for a double purpose:—to display the ill effects of the methods condemned, and the benefits derived from that recommended. The cases which have just been related are not sufficiently advanced to confirm the success of the latter.

CASE 4. *Long and ineffectual Use of Copaiba, &c.*

A baker, aged 22, applied to me three days ago with yellow and copious discharge—pain in the part of the urethra contained within the glans—and painful nocturnal erections. The tongue was loaded and the bowels were confined.

These symptoms had existed, better or worse, for the period of six months. The treatment had consisted of the exhibition of copaiba, injections, and cubebs, during the existence of pain and inflammation.

I ordered calomel, senna, and diluents, and applied a blister to the penis. The patient returned to shew himself to-day. The pain is nearly gone.

* These observations being written on this day (the 17th), it is of course impossible to give the sequel of the case.

Case 5.—*Acute Gonorrhœa—Inflammation of Corpus Spongiosum, &c. treated by Cubebs.*

A patient applied to me on the 7th of this month with symptoms of acute gonorrhœa—inflammation and induration of the corpus spongiosum—painful erections and chordee—paraphymosis, with thickening and transverse ulceration of the prepuce—and some pyrexia.

The complaint had existed for two months—the paraphymosis had originated in manual retraction of phymosis. The patient had been treated throughout by cubebs.

I have ordered calomel, senna, repeated blisters, and diluents. The patient is materially relieved.

Case 6.—*Discharge with pain for seven months—cured in one month.*

Geo. Ash, æt. 23, a tailor, admitted an out-patient, October 12th, 1833.

Thin yellow discharge—some pain an inch and a half behind glans—tenderness in that situation on pressure.

These symptoms have existed since March last, a period of seven months. Had great pain and chordee at first. Has been treated by cubebs and copaiba.

*Hyd. sub.* gr. v. *Opii*, gr. ¼, *o. n.*
*Hs. sennæ*, ℥ *Vin. colchici*, ʒj. *o. m.*
*Hirud.* viij. *peni.*

19th. No pain whatever for the last three days. Observed only "the slightest discharge" yesterday. Gums tumid.

*Bals. copaib.*, *Tinct. catechu*, āā ʒss. *bis die. Omit. pilulæ.*

22d. Scarcely any discharge.

*P.* ℥ *Bals. ter die. et haust. sennæ.*
*Inject. Plumb. acet.* gr. ij. *ad.* ʒj. *bis die.*

29th. No discharge for two days.

*Aug. Inj. ad* gr. iv. *ad* ʒj.
*Omit. haust. sennæ.*

Nov. 2d. *Aug. Inj. ad* gr. vj. *ad* ʒj.

Nov. 12th. Has had no return of discharge since the last report. To have injection sufficient for a month. Dismissed cured.

Case 7. *Acute Gonorrhœa, with Phymosis—cured in less than a month.*

Richard Draper, æt. 17, a baker, admitted an out-patient, Oct. 8th, 1833.

Phymosis—profuse yellow discharge—much pain in micturition. Pulse frequent—bowels confined.

The gonorrhœa has existed for seventeen days—the phymosis for two days. Seems to have taken copaiba. It made him much worse.

*Hyd. sub.* ℥ *Opio et Ant. tart. o. n. in* iv. *vices.*
*H. salin.* ℥ *Vin. ant. tart., Mag. sulph. et Vin. colch. 4ter die.*
*Dec. hord.* ℥ *Tragac. pro potu.*

12th. No pain for two last days—phymosis less—discharge copious.

*Omit. pil. et haust.*
*Haust. sennæ* ℥ *Vin. colch. o. m.*
*Pulv. trag. c.* ℥ *Pot. nit. &c. ter die.*
*Bals. copaib.* ℥ *Tr. catechu, o. n.*

19th. Swelling gone—discharge very greatly diminished—prepuce still tight, and evincing a disposition to superficial excoriation.

*P.* ℥ *Bals. bis die.*
*Inject. Plumb. acet.* gr. ij. *ad* ʒj.

29th. No discharge for last six days. Phymosis gradually reducing—some thickening of prepuce left.

Nov. 6th. No return of discharge or pain. Dismissed cured.

Case 8.—*Discharge for eight months—cured in less than one month.*

Thos. Everard, æt. 38, a wire-drawer, admitted an out-patient, August 26th, 1833.

Yellow thickish discharge—no pain.

This has existed for eight months. It began with acute gonorrhœa. He has been treated by cubebs, copaiba, &c. His wife has been infected by him.

*Hyd. sub.* gr. iij. *o. n.*
*Magnes. sulph.* ʒss. *o. a. m.*

30th. Discharge increased with scalding.

Sept. 3d. Very little scalding now—painful erections at night, the pain being experienced at the orifice of the urethra. Gums slightly affected.

*Ext. conii*, gr. x. *o. n.*
*P.* ℥ *Mag. sulph.*
*Omit. pil.*

9th. Scalding and painful erections gone—discharge much less; yellowish and thin.

*Inj. Dec. papav.* ℥ *Plumb. ac.* gr. j. *ad.* ʒj. *o. n.*

*Conf. sennæ* ℥ *sulph. o. m.*

14th. Discharge almost gone.

21st. Merely a very slight discharge in the morning; it is yellowish. A little pain when the penis is erect.

*P.* ℥. *inject. bis die.*

Oct. 5th. Discharge has not appeared for a fortnight.

Nov. 5th. Has remained cured.

CASE 9. *Discharge for three months cured in a few days.*

Geo. May, æt. 19, admitted an out-patient, Dec. 6th, 1833.

This patient had vascular warts on the glans and on the prepuce. These had existed for five weeks. He had also urethral discharge. This had continued for three months, and had been attended in the first instance with pain. He had several times had gonorrhœa previously. He had only taken some salts for this.

I ordered calomel at night and senna in the morning, with an injection of the acetate of lead thrice daily. The discharge disappeared on the next or the following day, and it has not subsequently returned

CASE 10. *Discharge for ten months—cured in a week.*

Robert Skelton, a tailor, æt. 26, admitted an out-patient, Oct. 11th, 1833.

Discharge yellow and not profuse—no pain. Has had the discharge for ten months.

*Pulv. rhei* ℥ *Magnes. o. n.*

*Haust. sennæ* ℥ *Vin. colch. o. m.*

*Inj. aluminis*, gr. ij. *ad* ℥j. *bis die.*

14th. No discharge observed to-day.

21st. No return of Discharge.

Ordered enough medicine for a fortnight. To return, if the complaint should re-appear. Cured.

CASE 11. *Discharge with pain for two years---cured in less than two months.*

Thomas Delaney, æt. 25, a shoemaker, admitted an out-patient, Oct. 11th, 1833.

Whitish discharge—pain felt near the site of the frænum.

Complaint has existed for two years. Has taken copaiba, and used a great variety of treatment. Five years ago he had his first gonorrhœa. This was treated in the acute stage by copaiba and the spiritus ætheris nitrici. Inflammation of the testicle was the consequence,

*Hyd. sub.* gr. iij. *o. n.*

*Haust. sennæ, o. m.*

*Hirud* xii. *peni.*

21st. Pain nearly gone.

*Emp. canth. penis infer. parti.*

28th. Pain gone.

*Rep. pil. et Haust. et Emp. Canth.*

*Pulv. Tragac. &c. bis die.*

Nov. 4th. Some tenderness in the testis formerly affected---some hardness of the epididymis.

*Hirud.* x. *testi. P. suspensorium.*

20th. Affection of testis passed away in a few days---no pain in micturition. Discharge whitish, thin.

*Inj. Pl. acet.* gr. iij. *ad* ℥j. *ter die.*

*Bals. copaib.* ℥ *Tr. catechu, o. m.*

*Pulv. Rhei,* ℥ *Magnes. o. m.*

*Omr. alia.*

Dec. 3d. This patient has for some time been free from any discharge.

CASE 12. *Acute Gonorrhœa for two months---cured in one month.*

Charles Daw, æt. 23, a butcher, admitted an out-patient, Sept. 27, 1833.

Much thin and yellow discharge---a great deal of pain along the course of the urethra.

Complaint has existed for two months. Has taken copaiba.

*Hyd. sub.* ℥ *Op. et Ant. t. o. n. in vices tres.*

*H. sen.* ℥ *Colch o. m.*

*Pulv. trag. &c. 4tis horis* ℥ *Dec. hord.*

Oct. 4th. Pain much diminished,--very little discharge.

*Emp. Canthar. peni.*

11th. Pain less---felt only at the orifice---latter vascular.

18th. Discharge gone for a week---still slight pain in micturition.

26th. Discharge returned this morning---it is yellowish---very trifling pain in the site of the frænum.

*Hirud.* vi. *peni.*

*P.* ℥ *Pulv.*

*Bals. copaib.* ℥ *Tr. catechu, o. n.*

28th. No pain.

*P.* ℥ *Bals. bis die.*

*P.* ℥ *H. sennæ, o. a. m.*

*Omr. alia.*

Nov. 2d. No discharge for a fortnight.

This patient subsequently reapplied with catarrhal affection. He had had no return of the discharge.

CASE 13. *Discharge with Itching of the Thighs for four months—cured in four or five weeks.*

A gentleman was recommended to my care by a friend, and first consulted me five or six weeks ago.

The prepuce was swollen, œdematous, and slightly inflamed—there was yellow urethral discharge—there was no pain in micturition or after it. There was a peculiar itching on the inside of each thigh. The tongue was loaded —the bowels irregular. This gentleman had lived freely, and drank much port-wine.

The discharge had existed for four months, and the itching had been the first and the constant symptom. There had been some pain in the commencement, but it had never been severe. The patient had been treated by copaiba, with which, and with its ill success he was utterly disgusted.

I prescribed calomel at night, and a mixture containing the carbonate and sulphate of magnesia in the morning. I directed the application of a lotion of the acetate of lead to the prepuce, and its subsequent use as an injection.

The swelling of the prepuce rapidly subsided, and the urethral discharge was speedily arrested. After a week's absence it returned, as the consequence of a port-wine debauch. A little more active purgation, the cessation of the employment of the injection for a day, and its repetition, with more attention to regimen, were again effectual in checking the discharge in the course of a very few days. When I saw the patient last, the discharge had not been observed for ten days, the sensation of itching of the thighs was nearly gone, and the general health was greatly improved.

CASE 14. *Discharge with slight Scalding for five months—cured in a fortnight.*

W. B. æt. 22, a groom, admitted an O. P. Sept. 27, 1833.

Yellow discharge thin—a little scalding.

Complaint has existed for five months —has taken much copaiba, &c.

*Hyd. sub.* gr. iij. *o. n. in noctes tres.*
*H. Sennæ, o. m.*
*Bals. copaib.* ℈. *Catechu, bis die.*

Oct. 11th. Discharge much less—very slight scalding still in glans.

*Hirud.* viij. *peni.*

21st. No pain since the application of the leeches—no discharge for ten days.

28th. No return of discharge. Cured.

I might mention other cases of this description, but I am impelled by two contrary motives to stop and to proceed. If only a few instances of success were related, the reader might suppose that I put my best foot foremost;—if a numerous array were advanced, he would feel disgusted with their tiresome monotony. Perhaps the striking nature of those which have been stated may render an addition to their number unnecessary. When a certain plan of treatment has long been pursued without effect, or without success, and another method, of a contrary description, has been speedily attended with the happiest results, I conceive that his mind must be formed of uncertain materials indeed, who can pause in determining which to prefer. It must not be forgotten that during the experiment the external circumstances remained the same. The patients were *not* received into the house, supplied with wholesome and with proper food, debarred from indulgence in excess, and preserved from the necessity of toil, but they still pursued their usual occupations, and were still exposed to all the influences that might aggravate or perpetuate their symptoms. To say more would be superfluous, to say less would be unfair. The comparison and the conclusion must be left to the candid and considerate reader.

The cases brought forward have been chiefly those in which the disease had existed for some time, and in which other treatment had proved ineffectual. It may not be improper to relate two or three in which the plan it is the ob-

ject of this and of a former paper to display, was adopted in an earlier stage. The authentic particulars of special facts are more fatiguing to the mind than general inductions, but the strict inquirer of the truth of what he reads, remains unsatisfied and unconvinced without them.

CASE 15. *Discharge without pain speedily cured.*

Michael Conner, æt. 36, a servant, had connexion a day or two before the 29th of October last. On that day he applied to me. There was yellow urethral discharge, *without* pain. He said that copaiba. always cured him.

He was ordered copaiba and catechu twice daily, and the discharge was arrested on the following day. He was perfectly cured.

CASE 16. *Gonorrhœa treated on the first day—cured in four or five.*

A young gentleman engaged in the study of the law, applied to me on the 29th of October last, in a state of considerable alarm.

He had had connexion five days previously, and on the morning of his application he had noticed some discharge accompanied with tingling, scarcely amounting to pain, in the act of micturition. He was florid and robust—accustomed to smoke much and to drink a *little*.

I ordered the pill of calomel, opium, and tartar-emetic at night for three nights—the draught of senna and colchicum each morning—the powder of tragacanth, &c. four times daily, with abundance of barley and toast-water—repose—and low diet.

Nov. 5th. Discharge ceased in a day or two. Has still some tingling, and even pain, at the orifice in the act of micturation.—*P. c Haust. et Pulv.*

10th. Has had no symptom since the 6th.

13th. Remains well.

I have frequently seen this gentleman since. He continues free from complaint.

CASE 17.—*First Acute Gonhorrhœa—cured in three weeks.*

A gentleman, æt. 21, applied to me on Oct. 10th 1833, with thick copious discharge—much scalding in the act of micturition—painful nocturnal erections, the pain being felt at the orifice, and so severely, that he was generally obliged to leave his bed. He was healthy, but of rather a strumous constitution.

This was his first gonhorrhœa. He had noticed the discharge two days. He had had connexion one week before he observed the discharge.

*Calomel, &c. every night for four nights.*

*Tragacanth, &c. four times daily in barley-water.*

*Senna, &c. every morning.*

*Ten leeches to the penis.*

16th. Pain and painful erections gone. Discharge thinner—free.

*Pulv. Rhei, c Magnes. o. mane.*

*Bals. copaib. c Catechu o. n.*

*P. c pulv.*

*Omr. Pil. et Haust.*

18th. *P. c Bals. bis die. P.*

23d. Discharge very much diminished. Balsam makes him very sick.

*Interm. Bals.*

*Inject. Plumb. acet. c Dec. papav.* gr. ½ *ad* ʒj. *ter. die.*

*Pulv. rhei. c Magnes. p. r. n.*

27th. *Utatur Inject. 6ties indies* (gr. ij. *ad* ʒj.)

31st. No discharge since yesterday morning.

Nov. 13th. No return of discharge. Has continued to use the injection and to abstain from wine and from malt liquor.

The diet of this gentleman was not strictly antiphlogistic, in order to avoid the risk of suspicion. He took less meat than usual, and chose fish when the opportunity of choice was presented. He drank no wine nor beer, and took as little exercise as possible.

CASE 18. *First Acute Gonorrhœa—arrested in a month—slight subsequent Relapse—cure.*

A gentleman, æt. 24, applied to me on the 11th of November last.

Thin, yellow, and profuse discharge—pain and scalding at the orifice in micturition. No pyrexia. Of a strong

constitution, and not very intemperate, though an Oxford man. Has been for many years exposed to infection in Oxford, in London, and in Paris. Never contracted the complaint before.

Had connexion with a stranger, his usual acquaintance being out of town, about ten days ago. Two or three days ago he thought he observed for the first time discharge and scalding. Has taken some salts.

*Cal.* c̄ *Ant. tart. et. Op. o. n. in noct.* iij.

*H. Senn.* c̄ *Colch. o. m.*

*Tragac. &c. in dec. Hord 4ter die.*

*Low diet and diluents.*

Nov. 15th. Discharge abundant and thinner—very little pain at the orifice—mouth apparently a little affected—bowels freely opened.

*Omr. Pil. et Haust. sennæ.*

*P.* c̄ *Pulv.*

*Pulv. rhei,* c̄ *Magnes. o. m.*

*To eat some fish.*

19th. Less pain at orifice—otherwise much the same—pale œdema of the prepuce.

*Resum. H. senn. vice Pulv. rhei.*

*Lavatio frigida.*

26th. Still very slight pain at the orifice, and indeed along the urethra—discharge less—œdema diminished.

*P. Hirud.* x. *peni ac perinæo.*

29th. Very slight pain at orifice, amounting to little more than tingling. Was relieved by the leeches.

Dec. 1st. Pain gone—some itching in the urethra—discharge thin, yellowish—œdema gone.

*Bals. copaib.* c̄ *Catechu,* ʒj. *o. n.*

*Rep. H. senn. o. a. m.*

*P.* c̄ *pulv.*

3d. Discharge almost gone. Itching less.

*Rep. Bals. bis die.*

5th. Discharge gone. Itching has ceased.

*Inject. Plumb. ac.* gr. j. *ad* ʒj. *bis die.*

*Rep. H. senn. o. 3tio. mane.*

12th. Has rather indulged in his eating lately, although he has avoided stimulating fluids. Has had for the last two or three days and nights almost continued erections with emissions. Has become very fat.

Last night he observed slight discharge, which this morning is yellow and distinct. Has omitted the copaiba for the last few days, and only employed the injection.

Having remarked, on more than one occasion, that the discontinuance of purgatives, or what may in some measure be deemed equivalent, the resumption of more nutritious or more stimulating diet has been succeeded by a marked disposition to erections and emissions, and that these in their turn had appeared to occasion a return of the discharge, I determined again to deplete this gentleman. His increased obesity and remarkable salacity made me think that the discharge depended on augmented fulness of the vessels.

I ordered him to live on fish—to repeat a strong purgative draught every morning—and to intermit the copaiba and injection for a day.

On the following morning the discharge was diminished, and the active purgation of only one day had impaired the disposition to emissions.

He was ordered to return to the injection and copaiba, the purgative draught and fish diet being persisted in.

In three or four days, the discharge had completely disappeared, and it has not again returned. The patient was directed to continue his precautions with respect to diet, and pursue the same plan with reference to medicine, for the period of three weeks or a month from the cessation of the symptom.

I might mention other cases of this description; but I fear I should fatigue the most patient reader. It is sufficient to observe that they illustrate the same facts and display the same characters. In none was copaiba given, nor were injections used, till pain in micturition or in erections had vanished, and in all a moderate purgation was employed. The patients were cured in from three to five weeks; and, as I am now speaking of inflammatory gonorrhœa, I conceive that this success is of no despicable nature.

It was stated, in a preceding portion of this paper, that saline medicines appeared to favour the subsequent occurrence of gleet. Probably a general ex-

pression of experience would be preferable, in this instance, to particular details. I have merely to observe that, in the only *two* cases of this troublesome symptom that have occurred under my management of gonorrhœa, the treatment in the commencement mainly consisted of salines. Whether this post hoc argument is conclusive, may safely be left to the determination of others; but the impression on my mind against these medicines is so strong, that I never venture to prescribe them.

A rapid review of the principles of treatment laid down, and the items pursued and recommended, may not be totally irrelevant.

The object of the author of this paper is to shew that gonorrhœa, though, perhaps a specific complaint, is commonly attended with the symptoms, and frequently complicated with the ordinary consequences, of inflammatory action. This inflammation may be limited to one tissue, or extend to several. In the commencement, it is seated in the mucous membrane; if aggravated, it invades the corpus spongiosum, the lacunæ, the cellular membrane of the penis or the perinæum, or it spreads by continuity of texture to the prostate, the bladder, or the testicle.

The symptoms characteristic of inflammatory action are briefly and obviously these;—pain in the act of micturition or erection, experienced in both at the orifice alone, in that part of the urethra contained within the glans, or, more rarely, along a greater portion of the canal. The enlargement and tenderness of the lacunæ—the thickening and pain on pressure of the corpus spongiosum, with its usual symptom, chordee—the œdema or the fluctuating swelling of the penis—the deep-seated pain, the swelling, and the obscure fluctuation of the perinæum—and the special symptoms which attend on inflammation of the bladder or the testis, are sufficient and decisive evidence of the inflammatory complications enumerated above.

So long as there is *pain*, I conceive that there is sufficient inflammation to prohibit the internal exhibition of stimulants, or the administration of injections. If pain is removed, and lacunar enlargements or induration of the corpus spongiosum remains, I still disapprove of the use of cubebs, copaiba, injections, or other remedies of that description. Some gentlemen may entertain a contrary opinion, and triumphantly refer to their success. Without impugning their judgment or their observation, I must still presume to confide in my own. I have used the best means I possess of arriving at the truth. My field of observation has been ample, I have endeavoured to divest myself of theory and prejudice, I have carefully observed the facts which came before me, and watched the effects of methods and of medicines. If others are dissatisfied and sceptical, I can only reply, in the words of Mr. Boswell, "what won't fill a quart-pot will fill a pint," and confess myself the pint-pot in the present instance.

Gonorrhœa, then, should be treated, whilst pain remains, as another inflammatory complaint—by calomel at night—by active purgatives of senna and of colchicum—by diluting and mucilaginous drinks, combined with soda and with nitre, in order to diminish the stimulating nature of the urine*—and, if the symptoms are obstinate or severe, by leeches to the penis, or by cupping on the perinæum, succeeded, if necessary, by the application of blisters.† These means with slight and with obvious modifications, would be such as the judicious physician would employ in the

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* The formula into which I have *settled* is this.

*Pulv. trag. c.* ʒij. *Pot. nit.* gr. vj. *Sod. carb.* gr. x. *Pulv. ip. c.* gr. iij. *M. 4tis horis*, c *Dec. hordei*, Oss.

Barley-water or linseed tea, or some other form of diluent, should be liberally drunk in addition to this.

† I find such benefit from leeches and from cupping, that if the case is at all acute, I order them immediately, and repeat them frequently. The pain and scalding are speedily relieved, the period for copaiba materially accelerated, and the cure effected with more dispatch and with more satisfaction.

inflammation of any organ. Erroneous notions of the venereal disease, and the prevalent disposition of mankind to believe in a specific, would seem to have led to a general disregard of natural precaution and established principles in the management of gonorrhœa.

When pain has ceased, or when the other symptoms of inflammatory complications have subsided, then, and not till then, would I recommend the use of cubebs or copaiba. The more I see the more I am convinced that the latter is the better of the two. If the surgeon and the patient restrain their ardour, and defer its employment till the period I have specified, it is astonishing how few doses, and in what small quantity, are sufficient to diminish or to check the discharge. I am also convinced that injections of the acetate of lead or alum, but especially of lead, are infinitely preferable to others of a stimulating character. The strength of the injection of alum may be raised to the point of saturation, and that of the solution of lead to the amount of twelve or of more grains to the ounce. Copaiba need never be given in large doses —injections of lead are generally sufficient—but perhaps more caution and more discrimination are required in *timing* than in *measuring* these remedies.

There are some incidental points on which I may make a few practical remarks, or rather, on which a hint may be expended.

The florid and robust would appear to be cured with more facility than those of a pale complexion, and a nervous temperament. The symptoms of the former are often more acute but generally more amenable to measures of depletion. The latter frequently require some preparation of opium, and the best has appeared to be Dover's powder. A full dose at night, succeeded by the ordinary purgative in the morning, has relieved many urgent and anomalous symptoms. Let not the surgeon be betrayed into tonics in the treatment of these individuals. Sedatives often suit, stimulants or tonics scarcely ever.

Gonorrhœa is frequent amongst the debauched, whose constitutional powers are destroyed by intemperance and by excess. Such patients are known not to bear much depletion. But they *do* bear purging, and they bear it well. Their inflammatory symptoms are usually speedily relieved by purgation, diluents, and temperance, and their treatment is, after all, less difficult than that of irritable, though not intemperate individuals.

It is said and believed, that successive attacks of gonorrhœa become more mild and more amenable to treatment. This is far from universally correct. A gentleman is under my care, who contracted his first gonorrhœa at Cambridge. He laboured under discharge for six months. He lately experienced a second infection. The symptoms were excedingly severe, and in spite of much care, though not of absolute precaution, hernia humoralis has resulted. A patient was lately in the hospital, from whom the following particulars were obtained. His first gonorrhœa had occurred three years before his admission; it lasted for six months—the second, two years before his admission; it lasted for two months—the third sixteen months before his admission; it lasted for six weeks—the fourth, thirteen months before his admission; it lasted for five weeks—the fifth and last, seven months before his admission; it had lasted for those seven months, and for it he was admitted. I might mention many other similar facts. The surgeon should consider the patient's symptoms rather than the ordinal numbers of the gonorrhœa.

I have formerly remarked that itching in the urethra is a common symptom. It sometimes remains as a solitary feature, but more frequently it is observed as the cure is about to be effected. I always regard it, on this account, with a feeling of satisfaction. I suppose it depends on a condition of the vascular or nervous constitution of the part, similar to that which is observed on the subsidence of inflammation on the surface of the body. Itching is there a familiar precursor of recovery. The best remedy for it, as a symptom, appears to be purging and patience.

A little sticking, or slight intumescence and redness of the orifice, not

unfrequently remains after all discharge has disappeared. The patient is not safe. The slightest excess, exertion, or discontinuance of remedies, may be followed by return of the discharge.

The patient should never be considered cured till a fortnight has elapsed after every symptom has vanished. It is common for discharge to return after an absence of a week or ten days. I have seen the interval of apparent cure even longer than this. I invariably direct the patient to continue the means he has been using for three weeks after the cessation of the discharge, and not to return to wine, or beer, or venereal intercourse, for a longer period than that.

A patient not unfrequently inquires when he may venture to marry. I will state a case. A gentleman was under my care in September with acute gonorrhœa. The cure was apparently effected in a fortnight or three weeks, but slight sticking of the orifice remained for a week or two more. This patient was to have been married in November. I recommended him to wait till December. He did so, and neither his wife nor himself have experienced the slightest discharge. A gentleman is now under my care in whom the discharge has stopped for ten days. Supposing that it does not reappear, I have advised him to postpone the matrimonial connexion till Feburary or March. This may be looked upon as over-prudent. A surgeon in the country recommended a patient under circumstances of this kind, to drink much wine and have connexion often. This is over-rash. The fact is, that I lately saw a case in which the discharge had been absent for a month, and was re-induced by connexion with a woman perfectly clean.

## MISCELLANIES.

### MR. GUTHRIE'S LIGATURE OF THE COMMON ILIAC ARTERY.

THE lady, whose common iliac artery Mr. Guthrie tied on the right side, on the 24th of August last, for a large gluteal aneurism, left town on Saturday, the 21st inst., for Scotland, in good health and spirits. The tumour has diminished three-fourths in size—the pain she experienced in the foot and leg, from the pressure of the aneurism on the great sciatic nerve, has nearly subsided—the pulsation of the femoral artery, immediately below Poupart's ligament is as distinct and full as that on the opposite side. Thus this most formidable operation has been successfully performed for the first time; and while it adds a wreath of laurel to the brows of the distinguished surgeon, it exhibits a splendid triumph of British surgery.

### MEDICAL REFORM.

The weekly journals will have informed our brethren in all parts of the Empire, and even beyond the seas, that the struggle has commenced between the profession at large, and the corporate bodies by which they are oppressed—or, at all events, unaided in any useful matter of medical legislation. The struggle will be great—perhaps protracted. Unless every large town in the kingdom petitions Parliament promptly, we shall have no reform that is worth a straw. It is probable that, at this moment, the dye is cast in favour of a royal commission, instead of a parliamentary enquiry! The profession can only work by open and fair petition—the corporate bodies are all at work—in the sick-rooms, the nurseries—nay, in the water-closets, to foil every attempt at reform! Every stratagem, every ruse, every species of *Punic* promise, will be put in force to keep up corporate monopoly and antiquated privileges. The apple of discord will be launched from a hundred hands, and in a hundred directions, every hour in the day. Some of our contemporaries are too sure of medical reform, and their confident prognostications will tend to lull the profession, especially in the provinces, into a fatal security. As for

ourselves, we candidly confess that we are any thing but sanguine of much amelioration for years to come. There is such a powerful phalanx under the influence of the corporate bodies, that reform will have a desperate fight and a doubtful victory. One of the greatest evils in the profession—the union of pharmacy with medical practice—will be fostered, not only by the corporate bodies but by nine-tenths of the two great ORDERS of the profession. The Apothecaries' Company well know that were the general practitioners emancipated from the thraldom of *trade*, and could dedicate themselves to the *science* of their profession, the expenditure of drugs would, at once, be *diminished to one-fourth of its present rate*. As a trading company, the Hong-merchants of Blackfriars are well aware of this contingency, and will oppose every parliamentary measure that has a tendency to dissociate pharmacy from the practice of medicine. The other corporate bodies will pull the same way, for obvious reasons—a jealousy of the encroachment of the "TIERS ETAT" on the NOBLESSE of the profession. The example of the French, who are about to dissolve effectually the unhallowed tie that binds physic and pharmacy together, will be some advantage to us here, though this same example will be eyed by the anti-reformers with as much detestation and terror, as constitutional liberty is viewed in Vienna, Berlin, and St. Petersburgh. The general practitioners, then, should not hope too much from Parliament in redress of this paramount evil. They ought to undertake the cure themselves. The remedy may be somewhat difficult; but we are confident that it is in their own hands. It will require unanimity and extensive combination. This combination, fortunately is of a very different kind from that of the trades' unions. The most aristocratic sticklers for their different ORDERS deplore, daily and hourly, the baneful system of remunerating the skill of the practitioner by one thousand per cent. profit on salts and senna!! The practitioner feels the degradation of such a system, and the patient feels it—if not in mind, at all events in body—and nine-tenths of the community would gladly see the mode of remuneration changed. It is, therefore, for the general practitioners to set about this item of reform as soon as possible, without waiting for the doubtful chance of legislative enactments.

We hope, however, to see the day when the level of medical education shall be raised so high as to separate physic from pharmacy completely. It is absurd to say that we must have poor men's doctors, the same as poor men's plasters—one scale of education for the rich, and another for the poor. What are our hospitals and dispensaries for? What are the morning levees of junior practitioners for, where the poor are treated gratuitously? There is a great redundancy of medical practitioners in this country, and what remedy can possibly be less objectionable than that of raising the education of the general practitioner up to the level at which the PURES now stand. There will still be plenty of operatives in the market—more than will supply the demand—although the article offered for sale will be much improved in quality. The dissociation of physic from pharmacy would be immediately productive of one immense advantage, the emancipation from apprenticeship. The Pures, both in physic and surgery, cannot pretend that an apprenticeship is necessary for the practice of either or both of these branches, since they themselves do not undergo that degrading yoke. The moment, therefore, that the general practitioner discards the sale of drugs, and charges for his professional skill, apprenticeship will only appertain to the chemist and druggist.

One of our contemporaries is quite shocked at the idea of raising the education of the general practitioner to a level with that of the Scotch or Irish diplomatist. "Will the worthy Doctor (J. Johnson) allow us to ask him one question? Does he mean to say that the candidate practitioner or candidate member of the faculty will be required to possess an amount of education equal to that taught by the Irish and Scotch universities?"

We sincerely thank our contempo-

rary for this interrogatory. We unhesitatingly answer in the affirmative. We aver that the education of the general practitioner is now very nearly as good, and *ought be* somewhat better, than that of the Scotch Doctor who asks the question. We appeal to every one, including our contemporary himself, whether the examination of the general practitioner is not now more searching than that of the physician in Pall Mall East, the surgeon in Lincoln's-Inn Fields, or the graduate in Edinburgh and Glasgow? And yet our contemporary entertains as great a horror of an equilibrium in education, as Nature does of a vacuum in the atmosphere! Is it not preposterous that the examination of the general practitioner should be more severe than that of the *ranks* above-mentioned, while their preliminary education should be less? Let our contemporary answer that question in return.

"When, says he, the clamour ceases against the Society of Apothecaries for requiring *so much* in their curriculum, we shall believe Dr Johnson answering in the affirmative—but not till then." Now let us analyse this jesuitical declaration of our contemporary. Who has raised a clamour against the curriculum of the Society, as far as the essential studies of medical science are concerned? None. But we have clamoured, and shall continue to clamour, so long as we have tongues to speak or pens to write, against the barbarous part of the curriculum, that consigns a youth to five years' labour *in the shop*, rolling pills and filtering tinctures, while only two years are assigned by the sapient society to the acquirement of anatomy, physiology, surgery, chemistry, therapeutics, and clinical instruction! Our contemporary is horrified at the idea of general practitioners rising to a par with the Scotch doctor, and very wisely advocates the system of keeping him back in the ranks of science by a five years' apprenticeship behind the counter.* Let the Apothecaries' Company reverse the order of their curriculum, and make the apprenticeship two years, while the study of the other branches is to occupy five years and then we shall approve of it. *Then* the general practitioner will be far superior to the Scotch doctor, and that "*Utopian democracy of medicine*," which our contemporary so justly dreads, will be in a fair way for realization. The curriculum of the Apothecaries is unjust. The Society expects the candidate to undergo a rigid scrutiny in the various branches of medical science, and yet annihilates five years out of the seven dedicated to the acquisition of that science!

To the delicate ears of the mouthpiece of the medical aristocracy, the word "REPUBLIC" must sound harsh and discordant as the hyena's howl. Yet the term has been applied to LETTERS, of which medicine forms no inconsiderable department. Not being under the trammels of a faction—we are free to confess that we do anticipate a republic of medical science and literature, as well as of letters and science in general—and that a day will come when *rank*, in medicine, will depend on individual talent and acquirement—not on the name of the place where the science of medicine was acquired. That day is fast approaching, notwithstanding the ridicule which our contemporary attempts to throw upon it. We strongly suspect that he feels a conviction of it himself:—and if he does not, he is either obtuse in his intellect, or he mingles little with the various *ranks* of his brethren. When he mixes more with them, he will be inclined to stickle

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* The question which our contemparary has put to Dr. Johnson, respecting the high scale of education possessed by the Scotch physician, comes with a very bad grace from a journalist, who has uniformly maintained that the Scotch physician ought to undergo an examination by the Society of Apothecaries, before he is allowed to act as a general practitioner in England! This is certainly an Irish kind of proof, that the said Scotch Doctor possesses a higher grade of education and knowledge than the general practitioners of this country!

less for "his ORDER," and to entertain a faint idea that the *capacity* of the "democracy of medicine" is just as good as that of the aristocracy—and that every attempt to prevent uniformity, or even equality of *education*, will in the end, be fruitless. We are not so Utopian as to suppose that equalization of education will produce equalization of talent, or of knowledge. Far from it. If every individual in the profession were to undergo the same course of study, and the same kind of examination, there would be just as much inequality of *real rank* as at present. But it would be founded on a very different basis—not on the name of the river or frith where the knowledge was acquired, but on the quantum which the individual possessed, and his talent for using it.

Our contemporary ridicules the idea of one faculty for the regulation of medical education and practice as perfectly Utopian. Now of the three Corporate Bodies in London, ONE, and that the lowest in rank, regulates the education and practice of nine-tenths of the medical profession in England and Wales. It would not require a very great stretch of imagination to suppose that it might regulate the remaining tenth also. For our own parts, we see no reason why any one of the three Corporate Bodies might not be erected into a faculty for presiding over the whole. The College of Surgeons have no legal power at all—and the College of Physicians have none, except over their own body in London and seven miles around. Can there be any very insurmountable difficulty in forming a FACULTY for superintending the education and practice of the profession, elected out of the three Corporate Bodies now existing? The various colleges in the kingdom may remain as seminaries of education, with the power of granting degrees, but this education would be regulated by ONE FACULTY, and moulded into some kind of uniformity.

Does our contemporary imagine that, because in the extensive departments of France it is proposed to have several faculties, the education will differ in each of those, as it does in each of our colleges here? And what says our contemporary to the separation of pharmacy from physic there, and the establishment of one uniform system of education, where every practitioner must have his doctor's degree, before he can enter on the duties of his profession? What a terrible picture this for the domineering Scotch doctor to contemplate! What! a general practitioner to possess a degree—and to prescribe—and to throw pharmacy overboard! "The affair is *rank*—it smells to Heaven."

To the augmented scale of education, we would suggest to the legislature the utility of fixing the commencement of medical practice at a later epoch of life—say the age of 25 years—than at present. If a better classical and mathematical education be insisted on, in addition to more extended medical study, the age of 25 years will not be too late. We confidently prognosticate that, if a *proper* parliamentary inquiry be instituted, the apprenticeship system will be modified, and the scale of education greatly equalized, whatever may be the ranks and distinctions retained. Equalization of education is all we contend for:—the *real rank* of individuals will then soon find its level in the profession and in society at large. This is what the monopolists well know, and hence the cry against raising the general practitioner, in point of knowledge, to a level with the Scoth Doctor.

Finally, we implore the provincial towns to follow the example of the licentiates of London, and the Westminster Medical Society, to get up petitions to Parliament, praying for an inquiry by a Committee of the House of Commons. If they do not bestir themselves all will be lost, notwithstanding the confident prognostications of some of our contemporaries.

P. S. Our contemporary is in high glee at finding some select passages in one of the volumes of this Journal, which apparently clash with some parts of Dr. Johnson's speech in the Westminster Medical Society. There are few Reviews that have amounted to 20 or 30 volumes, in which clashing sentiments might not be pointed out—as

the Edinburgh and Quarterly Reviews can testify. The Medical Gazette has very cleverly cut out certain passages from this Journal to serve its purpose. We shall indulge our contemporary with a few other passages from the same work, to shew that the Journal is not so much against its Editor as the Gazette imagines.

The paper from which the Gazette quotes was not written by the Editor, and for the following reason, which must carry conviction to every unbiassed mind. In the very same volume (Vol. VI. pp. 569) of the Journal Dr. Johnson has published a long paper on Medical Education, not anonymously, but *avowedly as his own*, in which he maintains all the opinions contained in his late speech at the Westminster Medical Society.

No. I.

"Mr. Lawrence's introductory lecture to his Spring Course has been published in the Lancet, No. 181, and the lecturer has exerted all his talents and rhetoric to prove, that no real distinction or line of demarcation can be drawn between physic and surgery, whether we look to education or practice. We shall here bring forward a document, shewing how far Mr. Lawrence has been original in his arguments and illustrations, on this point of medical jurisprudence. The following paper was written and published by the Editor of this Journal *ten years ago*, and may be seen in the 4th volume of the Medico-Chirurgical Journal, pages 342—7. It will be evident that Mr. Lawrence has taken the arguments, the illustrations, and almost the identical expressions of this paper for his introductory lecture.

"The boundaries between physic and surgery have not till this moment been defined—a strong presumption that nature does not sanction them! The distinction of internal and external diseases is any thing but correct or satisfactory. Gout, for instance, alternates with erysipelas. In the first form the physician claims it as his own; in the second, the surgeon steps in and demands the treatment. But is not the erysipelas in this case, and indeed in almost every other case, dependent upon an internal, or what is termed a constitutional cause? and can it be, with any degree of safety, treated as a topical affection? Here, then, must not Physic and Surgery be united?—569.

No. II.

"Let us glance at the great disorders of the three principal cavities of the body. Is idopathic phrenitis more dangerous and difficult to treat than that from a fracture of the skull? Are idiopathic convulsions more terrible than those from a splinter of bone driven through the coverings of the encephalon? Is idiopathic tetanus more fatal than traumatic? In what consists the difference between idiopathic and traumatic pleuritis, pulmonitis, carditis, diaphragmitis, hepatitis, gastritis, splenitis, enteritis, peritonitis, cystitis?—None. Or, if there be any difference, the difficulty and the danger are on the side of surgery.

What then remains? Fever? Does the hectic of the lungs exhibit a greater spectacle of horror and emaciation than the hectic of lumbar abscess, or disease of the hip-joint? Is the inflammatory fever resulting from aërial vicissitudes to be compared with that supervening on a lacerated member or crashed knee-joint, where the dire commotion threatens every instant to annihilate the living fabric at a blow? The typhoid fevers differ in no respect from the ulterior stages of inflammatory and symptomatic fevers.

Seeing, then, that the greatest and most dangerous diseases, both in physic and surgery, to which humanity is subject, are completely identified, is it not evident that the surgeon, in acquiring a knowledge of *these*, must, in course, acquire a knowledge of the minor and intermediate maladies, which are reckoned *Medico-Chirurgical* by both professions? And, is it not evident from these premises, that the surgeon, if properly qualified, must add to the *science* of the physician the *art* of operating? Anatomy, physiology, and surgery, are merely the first steps by which the student gains a footing on the hill of science. When he can unravel the brain

without a light, or take up the external iliac blindfold, he is scarcely advanced a day's march on the great journey of medical science. These, which are termed, and justly, elementary branches, are little more than the alphabet of medicine, though they are considered at the beginning as the ultima thulé of professional knowledge. The surgical student thinks himself armed at all points; but every year's subsequent experience shews him more and more his own ignorance!

In fine, physic and surgery are only parts of a grand whole: one cannot be properly known without the other, no more than navigation can be learnt without the aid of arithmetic. The distinctions between the two branches cannot be drawn or maintained, even in the largest cities. To be convinced of this, let any one sit down by the side of Cooper and Abernethy for a day, and he will see these illustrious surgeons lopping off nine surgical cases with the quicksilver pill and infusion of cascarilla, for every one which they remove by the knife or by caustic. But what is more extraordinary, he will see patients of all ranks afflicted with purely *physical* diseases, resort to surgeons for advice. Hence it is evident, that the general sense of mankind acknowledges not the artificial divisions which we have made in the profession."

No. III.

"In no possible way can we find any natural or just distinctions between physic and surgery; and yet I do not object to the distinctions in *practice*. It is against the idea of a difference in *education and study* that the above remarks are levelled. It is morally impossible that a man can be a good physician without knowing the principles of surgery; and it is still more absurd, to think that a man can be a good surgeon without being intimately acquainted with the principles of physic. If it be objected that an intimate acquaintance with the minutiæ of both branches is too much for one person to acquire, I answer, 1st, in the words of Richerand, 'l'etendue de la sciénce ne justifie point les *limites arbitraires* que l'on voulut tracer entre ses diverses parties.' 2d. I am of opinion, that it is much more easy to acquire a profound knowledge of both branches, than of either one separately: and for the reasons already stated, that the two sciences are interlocked at all points, even the apparently most distant; for instance, *pneumonia and fracture*. Hence to attempt to learn the one without the other is to tie up one of our arms when we commence a mechanical trade!" *Med. Chir. Journ. vol.* IV. *p.* 344, 1817, *and Med.-Chir. Rev. vol.* VI.—1827.*

No. IV.

"But, except the purely *operative* part of surgery, medical and surgical *practice* is completely blended, for the best of all reasons, that medical and surgical diseases are essentially the same. Hence, it is incumbent on the young physician to *study* surgery at least, and to dissect as assiduously as though he were designed for the operation room; while the surgical student may be assured that *medicine* is his sheet anchor at last; and that whatever degree of accuracy he may attain as an anatomist, or dexterity as a surgeon, yet, without pathology and therapeutics, these brilliant acquisitions will avail him little in his professional journey through life." *Ib.*

We now come still closer to our present epoch—namely, to 1828.

No. V.

"We maintain, then, in the first place, that the PRACTICE of MEDICINE necessarily includes a knowledge of surgery—secondly that the PRACTICE of SURGERY necessarily includes the practice as well as the knowledge of medicine—and thirdly, that the PRACTICE of these two great artificial divisions,

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* The Gazette cannot pretend that it only sets the Med.Chir. Review against its Editor—his final couplet shews, that his object is to prove that Dr. J. is inconsistent with himself:—

"Manners with fortunes, tempers *change* with climes,
Tenets with books, and *principles with times.*"
*Gaz.*

necessarily includes a knowledge of all the other divisions, however designated as subordinate, auxiliary, or collateral. Midwifery, pharmacy, chemistry, medical botany, ophthalmic, acoustic, and dental surgery, &c. are all as arbitrary dislocations as those of the unlettered butcher, the erudite Bonetus, or the experienced Baillie. To these separate branches let men attach themselves, (after being grounded by education in all the others,) as interest, inclination, or individual genius, may prompt. But, for our parts, we shall make no distinction between the different members of the same family."—*Med.-Chir. Review, Vol.* VIII. *Jan.* 1828..

With the exception of pharmacy, these are still our sentiments. The education should, and will be equalized, where the profession is one. A minimum raised to the height of the present maximum does not preclude men from going higher, nor withdraw the stimulus to industry. On the contrary, it would add to the stimulus.

*Note.*—It may surprise our readers that these "*levelling sentiments*" of Dr. Johnson, contained in the foregoing extracts, have never before attracted the attention of our aristocratic contemporary! There are reasons for all things. While the Medico-Chirurgical Review was in open hostility with the Lancet, Dr. Johnson was a respected fellow labourer in the eyes of the Gazette, but from the moment when he (wisely) determined to desist from all hostilities with the Lancet or other journals, the MEDICAL GAZETTE took every opportunity of censuring and carping at him! Dr. Johnson never once retaliated, and does not mean, even under all these galling annoyances from an old friend, to renew a system of hostilities, which do no good to either party, and injure the profession generally. The Gazette may act on this hint, and fire away, under the certainty that no shot will be returned.

### WESTMINSTER MEDICAL SOCIETY.

Our contemporary is nearly ready to jump out of his skin with joy, because by a conservative manœuvre on one night, and clique of monopolists on another, the motion for a faculty to regulate the education and the practice of the profession was negatived, after being carried by a great majority! The manœuvre was to mystify the business, and lead the Society to believe that the BALLOT was to be upon the *amendment* of Dr. Johnson's motion. By this manœuvre, the reformers were thrown off their guard—a conservative clique was brought down the next night—and the *original* motion was negatived by a paltry majority of *ten*. Even this insignificant majority would not have taken place in a jury, packed as it was, had not the MEDICAL GAZETTE distorted and misrepresented the intention of Dr. Johnson's motion. That motion made no allusion to the annihilation of colleges, or other seminaries of education now existing; but only to the establishment of a FACULTY, which should regulate the education of the whole profession, and prevent one college from issuing one curriculum of education, and a neighbouring college a totally different one; by which discrepancies and inconsistencies, great detriment was done to medical society and the public at large. Thus, for example, such a faculty would ordain that the colleges of London, Edinburgh, Glasgow, Dublin, Aberdeen, and St. Andrews, whether medical or surgical, should prescribe one uniform curriculum of study, leaving it to the students to graduate at any one of these colleges according to their convenience. This reasonable and useful proposition was instantly converted by the MEDICAL GAZETTE, into a proposal to abolish all existing institutions, and have but one MEDICAL DEMOCRACY in the three kingdoms! A more disingenuous and false interpretation was never put upon words!

But the MEDICAL GAZETTE may possibly have exulted somewhat prematurely. Dr. Epps has given notice for a discussion on the legality of the proceedings on the above occasion, which discussion will take place on the first meeting after Christmas. If the reformers sleep supinely on their posts, and permit the monopolists to carry their

measures a second time, why then the cause of reform is not zealously entertained by those members. We want nothing but an open arena and fair play. Let the sense of the Society decide. The magnates of monopoly are now openly boasting every where, that Dr. Gregory has outwitted and knocked up the reformers—by first coinciding apparently with—nay, actually *penning*, the resolution which he afterwards opposed, and caused to be thrown overboard in the Society—thus launching the apple of discord among its members. Yes! Dr. Gregory undertook to draw up a resolution, from two or three propositions, that might meet the wishes and concentrate the ideas of all present —and this resolution, which Dr. Johnson undertook to move, was afterwards opposed and cancelled by Dr. Gregory in the general meeting!!! We envy him not his triumph—which may, perhaps, be short.

Should the original resolution be again agitated, Dr. Johnson means to word it in such a manner, that it cannot be misrepresented or misunderstood —and should it not be agitated, he will give notice of a motion to the following effect:—

"That, in the opinion of this Society, a more extended and more uniform system of medical education than at present exists is highly desirable; and that the power of organizing and regulating that system of education would be better vested in one body or faculty, under the sanction of the Legislature, than left to the option or caprice of various universities, colleges, corporations, and faculties, each of which enjoins its own peculiar course of study, whereby much confusion and discordance are produced in a profession, where the mode of elementary education ought to be the same for all its members."

If the monopolists of high-pressure education and academic honours come down to stifle this attempt to raise the general level of medical knowledge throughout all ranks of the profession —let them have the credit of their disinterested labours to themselves. We trust, however, that they will be disappointed.

## EXTRA-LIMITES.

### OBSERVATIONS UPON THE CRITIQUE ON MR. CARMICHAEL'S PAPER, &c. &c.

SIR,—In your last Number, there is a critique on a Paper inserted by me in the Dublin Medical Journal for this month, "on Inflammatory Affections of the Brain and its Membranes," which demands from me some observations, not only because, in the critique in question, some misapprehensions and oversights require correction, but that a further discussion of the subject included under the title of my paper, may lead to more defined and precise notions respecting the nature and appropriate mode of treatment of a numerous and important class of diseases.

Upon the first case detailed, one in which the inflammatory affection of the brain and its membranes was indicated merely by a pain in the ear, shooting from thence along the side of the head, the reviewer indulges in the following animadversions; which, on a consideration of the facts, he will scarcely consider himself justified in making.

"We must confess, that, great as is our respect for the talents and attaiments of the gentlemen concerned, we do not approve of the treatment pursued in the preceding case. A plethoric person has violent pain in the side of the head, which has lasted for some time, and been aggravated by imprudences, and is attended with loaded tongue and quick pulse. He is relieved by leeches and

cathartics. We would rather have bled the patient than leeched him; but let that pass. Two days afterwards he is again found suffering from pain, and he has sickness of stomach. Under these circumstances, he is ordered three grains of calomel and ten of Dover's powder, with cathartics and a blister. Why was opium given? Under such circumstances, bleeding or cupping would surely have been preferable to the blister, and an active system of purgation with calomel, in our humble opinion, have been the most appropriate remedies. He is now, however, put on mercury and improves a little, when he is ordered bark, with hyosciamus and camphor. Again, after this, narcotics are given. He dies with purulent effusion between the membranes. We repeat, that we think the patient would have a better chance of recovery if he had been more actively treated in the first instance, and more antiphlogistically throughout. We have noticed the case with the view of cautioning practitioners, for, unfortunately, we have seen others not very dissimilar."

A reviewer elevates himself into the dignified situation of a judge, and he, of all human arbiters, in detailing the grounds upon which he forms his judgment, ought to be cautious not to suppress important points of evidence, or give a false colouring to any circumstances of the case. This observation will, I think, be sufficiently substantiated, in the case under consideration, by comparing the reviewer's statement with the original Essay. The reviewer says---"Mr. C. considered the case one of inflammation, ordered sixteen leeches near the ear, and cathartic medicine, containing tartarized antimony to be taken every hour. In the evening the patient was better, and *Mr. C. did not see him again till the 20th.*" Would not any one conclude, from the above passage in Italics, that my postponing to see my patient till the 20th was my own voluntary act, arising from a belief in his safety? In candour and fairness, my reviewer ought not to have omitted the following passage, which appears in the original statement:---"I saw him again in the evening (18th March); the leeches had caused an *unusually profuse discharge of blood*, and the medicine had affected his bowels; his countenance was composed, and he said that *he felt so perfectly relieved from pain, from what had been done, that he would not again trouble me to visit him.*"

If, however, the reviewer had given this passage, he could scarcely afterwards have added, in commenting on the futility of leeches in such a case—"we would rather have bled him—but let that pass." An omission of such a hit as this would not, it seems, from the context of the critique, have answered our reviewer's purpose.

That which marks the difference and grades of intellect amongst individuals of our profession, is the power or tact of tracing symptoms to their sources in the commencement of disease; and this at times is so difficult a task, that men of the most powerful minds and of the most extended experience are not ashamed to acknowledge, that they have often erred in their judgment, until the progress of the malady unfolded clearer views and a more certain diagnosis. When once a disease is fully developed, the path to be pursued is plain, and easily followed by even the dullest and most ignorant pretender to medical science; therefore my reviewer has little to boast of, in the display of his superior judgment over the author he criticizes, when a post-mortem examination had demonstrated to him the true nature of the disease; and then to proclaim with a commanding air the identical treatment, which was plainly the object the author had insisted upon in his paper; seems, to say the least of, rather bombastical. But would this gentleman, who finds it so easy a task to lay down the practice that he conceives ought to have been pursued after the case has terminated, and dissection has left no doubt of the true seat and nature of the disease, have found no difficulty in deciding upon the appropriate line of treatment, if he had seen the patient at an earlier stage? Has he not observed most painful neuralgic affections of the ear, temple, and side of the head and face, occurring in dyspeptic persons, which often simulate an inflammatory attack? and might not all his general bloodlettings, blisters, and

strong mercurial purgatives increase, instead of diminishing the painful symptoms of such a malady? I did not consider the case to be one of neuralgia; but, if I had so considered it, I should not be ashamed or afraid to state a mistake, which, in this instance, was very likely to occur, as the symptoms more strongly resembled a neuralgic than an inflammatory affection.

The patient had been for years a very dyspeptic person, therefore the more liable to neuralgia. My treatment was cautious, as I deemed it prudent to feel my way. Leeches were preferred to general blood-letting, because there was not decided evidence that the disease was inflammatory; but the leeches and antimonial purgatives relieved the pain on the first day so completely, that the patient himself intimated that my attendance was no longer requisite. The relief afforded strong grounds that I was right in the treatment I pursued. The pain recurred, but with far less violence, and I determined to mercurialize the system—a measure calculated to benefit the patient in either case, whether neuralgic or inflammatory; and Dover's powders were given *once* conjoined with calomel, with a view to relieve pain. It is unnecessary to hint, that opium may be given in inflammation, after the force of the circulation is reduced, with safety and the best effects.—Witness Dr. Armstrong's excellent practice of exhibiting a large opiate in peritonitis after bleeding. This is my answer to the question, "Why was opium given?" The pulse during this treatment fell on the 21st to 80, and the pain was so far relieved, that I was a second time released from farther attendance by the desire of the patient.

Although the pain was at times lancinating, shooting along the temples and side of the head, partaking very much the character of neuralgia, yet from the first I considered it to be connected with inflammation. What indications in the gross determined my judgment I cannot now distinctly detail. I have every day witnessed more severe pain and equal quickness of pulse attendant upon neuralgic affections; but in that arising from inflammation, though more severe at one time than another, and even this encrease returning at regular periods, yet *some pain* is always present. The reverse we know to be the case in neuralgic affections, the patient between the paroxysms being *totally free* from pain. A practitioner draws his conclusions from the totality of the symptoms amongst which the expression of the countenance is of the utmost importance. In this instance, as well as in others where neuralgial inflammation existed, I have observed the expression of the eye to be often dead and languid; but it is in vain to attempt by words to convey an adequate notion of the peculiarity of expression which seems to attach itself to each individual disease. This can only be learned by the practitioner's tact and talent for observation. Thus a very different mode of expression attends phthisis, hepatics, peritonitis, pleuritis, meningitis, and various other affections. The expression of the eyes in tetanus announces to the first glance of the practitioner the nature of the disease, even before the patient feels his jaws begin to stiffen; and yet it is impossible to convey by words any notion of the peculiarity of this expression. I fear that by some I shall be esteemed garrulous in making these observations, but many will perhaps coincide with me, that a practitioner of experience will anticipate justly in his mind the nature of the organic disease with which a patient is affected by the very expression of his countenance, before he hears a word on the symptoms or history of the case submitted to his judgment; and it was the exercise of this power of morbid physiognomy which principally induced me to consider the disease in the present instance to be of an inflammatory nature. Another circumstance concerning this interesting and important case is worthy of remark. Although the pain was referred chiefly to the ear, yet no signs of inflammation of that organ was discernible. An analogous instance of a patient dying of menengitis, (notwithstanding the strongest antiphlogistic measures,) in whom the disease was indicated by violent pain in the eye, and yet that organ was found free from inflammation, is referred to in my paper.

These two instances alone are sufficient to put us on our guard against inflammation of the brain or its membranes, whenever we meet with acute attacks of pain in the ear attended with pyrexia, in which neither of these organs indicate the other usual signs of inflammation.

One interesting case well sifted and analyzed is more instructive than a hundred superficially detailed; I therefore do not regret that the animadversions of my reviewer have excited this discussion, as the observations of the practitioner who witnessed the case are necessarily more entitled to confidence than those of any other individual, unless indeed he happen to be a reviewer; and I am not disposed to cavil at any man's privileges.

As a proof of my obsequious submission to prerogative, I shall abruptly terminate the discussion, although my reviewer has left me ample opportunities of commenting on a fastiduousness that nothing can please. Even my second case though beyond measure successful, excites his displeasure as much as the first. My third case "presents nothing of interest,"—my fourth, though acknowledged to be interesting, is "sadly diffuse in narration." In the fifth I am accused of being a regular Emerald Islander; and the sixth case, though given by the reviewer in full, and detailed for the purpose "of showing the general character of the treatment recommended by Mr. C., is such as possibly occurs to all surgeons or physicians engaged in practice."

Our reviewer after *fibbing* me in this pleasant kind of way, good humouredly closes the set-to by patting me gently on my organ of self-esteem, and observing "we trust no apology is necessary to Mr. C. for having criticised his opinions freely—for Mr. C.'s talents we entertain a high respect, &c." The oiliness of this panacea is well adapted for the embrocation of bruises far sorer than any I have suffered on the present occasion. But I cannot refrain from thinking that both gauntlet and plaister were supplied from this side of the channel. I know that I am not without one or two kind and goodnatured friends, who would like to benefit my health even at the expense of my practice. They have been observed of late galloping about town, and flourishing in the faces of people on all apposite occasions, a large blue book entitled the 38th number of the Medico-Chirurgical Review, but let them write and gallop as much as they please, they will not find it quite so easy a task as they fondly imagine to gallop over or write me down. If a man honestly flourishes, I enjoy his prosperity; but I tell the pretender who flourishes by foul means, that his flourishing is in vain, he will not flourish long.

## NOTE BY THE EDITOR.

Dr. Johnson has given insertion to Mr. Carmichael's Reclamation, in order that he may set himself right on all points where he is, or thinks himself agrieved by the Reviewer. But Dr. J. can assure Mr. Carmichael that his Reviewer is no secret enemy near himself—nor any enemy at all. The Reviewer never saw Mr. C. in his life—and never had his foot on Irish soil. He is a Gentleman attached to a large public Hospital in this Metropolis—has had ample experience in surgical cases—and Dr. J. will, at any time, disclose his name, privately, to Mr. Carmichael. Dr. J. has much pleasure in stating this fact, in order to relieve Mr. Carmichael's mind from the idea of having secret enemies in Dublin, who write against him in the "large blue book." That book never yet inserted an *anonymous critique* on any medical or surgical work: and never, since its first existence, published a critique of any kind from the pen of a member of the profession in Dublin—or, to the best of Dr. Johnson's memory, from the pen of any man in the Emerald Isle. It is very true that Dr. J. cannot, from the extent of his other avocations, write the whole of a Journal, which is entirely *Review*; but he writes more of it than some people give him credit for; and he employs none for the purpose of assisting him, but those on whose talents and integrity he can depend. Had this not been the case, *The Medico-Chirurgical Review* would not have attained its present circulation, and it would not have had the *costly* honour of being the only Medical Journal that was ever *re-published* on a foreign soil. Dr. J. says *costly* honour, since that re-publication, though it does not diminish the circulation at home, yet it supplies more than a thousand subscribers beyond the Atlantic.

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N. B. In consequence of the press of matter this Quarter, the Bibliographical Record is unavoidably postponed till the next Number.

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# MEDICO-CHIRURGICAL REVIEW,

## No. XL. APRIL 1, 1834.

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### PRIZE ESSAY.

The Association for Medical Reform has proposed three Prizes for the best three Essays on the following subjects, viz. the Present State of Medical Science and Practice in the United Kingdom; and the most advisable and efficient Mode of promoting the advancement and the Improvement of both, in all their Branches. The sums are 50, 30, and 20 pounds for the Essays, according to their merit. As the Essays were to be delivered on or before the 1st of March to Dr. Epps, Great Russel Street, our notice is, most probably, too late. Still the liberality of the offers is worthy of record.

The Index to the 20 Volumes of this Series, and to the Four Volumes of a preceding Series, will now be immediately commenced.

Mr. Wood, reprinter of this Journal in New York, is hereby informed that his letter of Feb. 27th is received. It will be complied with, in respect to both the subjects. The portrait is in hand.

Harrison's Infirmary.—Several philanthropic individuals, and especially Mr. Underwood, of Gloucester Place, have projected an Infirmary for the Relief of distorted Paupers and others needing manual and medicinal remedies. We wish it success, and have subscribed to it as a proof of our good wishes.

THE

# Medico-Chirurgical Review,

No. XL.

JANUARY 1, 1834, TO APRIL 1, 1834.

## I.

## RECENT WORKS ON PATHOLOGICAL ANATOMY.

I. ILLUSTRATIONS OF THE ELEMENTARY FORMS OF DISEASES. By *Robert Carswell*, M. D. Professor of Pathological Anatomy in the University of London, &c. Fasciculus IVth. MELANOMA. Longman's, London. 1834.

II. PRINCIPLES AND ILLUSTRATIONS OF MORBID ANATOMY, &c. By *J. Hope*, M.D. F.R.S. &c. Parts IX. and X. for January and March, 1834. Whittaker, and Co. London, 1834.

III. ANATOMIE PATHOLOGIQUE DU CORPS HUMAIN, &c. Par *J. Cruveilhier*, Professeur d'Anatomie à la Faculté de Médecine de Paris, &c. Dix-huitiéme Livraison. A Paris, chez J. B. Bailliere, Libraire, 1833.

IV. THE SECOND FASCICULUS OF ANATOMICAL DRAWINGS, SELECTED FROM THE COLLECTION OF MORBID ANATOMY IN THE ARMY MEDICAL MUSEUM AT CHATHAM. Folio, Nine Uncoloured Lithographic Plates, London, 1834.

THE contemplation of four such works as these on pathological anatomy, published at one time and almost in the same country, is calculated to give rise to a train of reflections in the mind of the most dull and unthinking observer of the world of medicine. It is but a few years since this department was a desert; it is now the fairest province in the land of science. Could the venerable fathers of our art rise for one short hour from their graves, and observe the dissector and the draughtsman busy at their avocations—see their ancient systems and their toilsome observations overthrown by labours, which their infancy in philosophy and their natural prejudices consigned to the earth-worm and the mole—view the morbid anatomist deriding their dogmas and pitying their credulity—those primitive sages would hurry to the land of sprites, and quit without reluctance a new world, too wise or too insane to have aught of community with them.

Could they who drew the bow and fixed the arrow see where it has sped, they would probably own that they had been but blind and short sighted instruments, in the hands of that Power which guides the destiny and determines the progress of the human race. Bichat, Baillie, and the Hunters commenced the investigation of the anatomy of disease. Their

æra is scarcely passed away, yet the study on which they entered has already revolutionized the practice and the theory of medicine.

There are many who regard this with horror and dismay—more who look on with misgiving and suspicion. The former class of thinkers sigh at the downfal of Hippocrates and Galen. They cling to the doctrine of critical days, and hug the belief in critical things.* Fever is an entity, regulated, like the tides, by some mystic influence—rheumatism lasts for about six weeks—sarcocele, white-swelling, gravel, are good old terms with a good old meaning. These gentlemen, like the Tories of forty-five, have a hopeless attachment to the ancient dynasty—they drink to the king over the water, and damn the House of Hanover. They must have their way, and as Time, the great innovator, takes them to his bosom, their stools will be filled by younger and more ardent spirits.

We cannot say that we participate in the apprehensions of those who regard with suspicion the taste for morbid anatomy. It is a good fault to lean to the side of exactness and induction, a fault which rather breeds a sternness than a laxity of reasoning. Some amount of enthusiasm must be expected and excused in the application of a power which has worked such miracles already. Extravagant anticipations will in time be sobered down, and reason and sense are tolerably sure of prevailing in the long run. Pathological research has done and will do sufficient for our science, to compensate a thousand times the injury it ever can occasion.

Such are our own sentiments, and actuated by them we have endeavoured and shall still endeavour, to lay before our readers, as occasions offer, an abstract of what is done by labourers in this department. The very persons who object to the zealous cultivation of morbid anatomy cannot fail to perceive that they *must* keep pace with it. The race is going on, and the man who is unhorsed or who quits the saddle will never see the goal.

Leaving this train of general remark, we will now advert to the works before us. The subjects they embrace are melanoma—hypertrophy of the tissues of the intestinal canal—scirrhus and cancer—diseases of the uterus and the ovaria—of the kidneys, renal capsules, and the cerebellum—of the larynx and lungs, the small and large intestines, the heart and the great vessels. It must be owned that the variety and abundance of the viands require and perplex selection. It is so difficult and so tedious to amalgamate the opinions of different individuals, that we commonly prefer adverting to them in succession. This is the method we shall now adopt.

And first of Dr. Carswell. The subject of his fourth Fasciulus is MELANOMA. He observes that various and very different morbid products have been confounded with melanosis, as first described by Laennec. He thinks that those black formations or products which depend on a change in the process of secretion, and constitute an idopathic disease, should be viewed as true melanosis; whilst those which originate in the accumulation of a carbonaceous substance introduced into the body from without, the action

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* A highly respectable physician lately took us to task, in the Medical Gazette, for smiling at the doctrine of Critical Days. He will pardon us for declining to commence a controversy. The relatives of Dives would not have been convinced, even if Lazarus had left Abraham's bosom.

of chemical agents on the blood, or the stagnation of this fluid, may be grouped under the denomination of *spurious melanosis*. True melanosis is therefore considered as of one kind: spurious melanosis as of three: 1st. from the introduction of carbonaceous matter; 2nd. from the action of chemical agents on the blood; 3d. from the stagnation of the blood.

1. TRUE MELANOSIS. This is a morbid product of secretion, of a deep brown or black colour of various degrees of intensity, unorganized, influenced in its form and consistence by external agents.

Its principal seat is in the serous and the cellular tissues. It is observed in the substance or molecular structure of organs. It is found in the blood contained chiefly in the venous capillaries, under circumstances which shew that it must have been formed in these vessels. The much greater frequency of melanosis in the grey and white than in the bay, brown, or black horse, is a circumstance which may be noticed here as favourable to the theory which ascribes the origin of this disease to the accumulation in the blood of the carbon which is naturally employed to colour different parts of the body, as the hair, rete mucosum, choroid, and other parts.

Dr. Carswell considers in order the physical, chemical, and anatomical characters of melanosis. The physical comprise the form, the bulk, colour, and consistence.

*Form.* This displays four varieties:—punctiform—tuberiform—stratiform—liquiform.

*Punctiform Melanosis.* "This form of the disease appears in minute points or dots, grouped together in a small space, or scattered irregularly over a considerable extent of surface. These appearances are most frequently seen in the liver affected with melanosis, the cut surface of this organ appearing as if it had been dusted over with soot or charcoal powder. When examined by the aid of a lens the black points sometimes present a stellated or pencillated arrangement, which, in some cases, can be distinctly seen to originate in the ramiform expansion of a minute vein filled with the melanotic matter, at other times this matter appears to be deposited in the molecular structure of this organ in a manner similar to that of the organizable part of the blood. In such cases it consists of the most minute points disseminated throughout the acini of the liver, which then assume a uniform grey aspect of various depths of shade, terminating in black." 2.

*Tuberiform Melanosis* is the most common. It occurs in most of the organs, and sometimes upon serous surfaces. In the former situation the tumors are generally globular; in the latter not unfrequently pyriform. They are usually found single in organs, and aggregated in cellular and adipose tissues; perhaps they have never been found limited to one organ. The tumors are most numerous in the cellular and adipose tissues, and produce by their aggregation masses of great bulk. The tuberiform melanosis is always combined with the punctiform in the liver, lungs, and kidneys, while on serous membranes they are accompanied by the liquiform variety of the disease. The tumor may or may not be encysted. It is, perhaps, never found so in compound tissues or organs, as the brain, lungs, liver, and kidneys; it is always so in the cellular and adipose tissues; and sometimes so on the surface of serous membranes.

*Stratiform Melanosis.* This occurs only on free surfaces, and presents two stages or degrees. In the first, the serous membrane on which it is deposited presents an appearance of having been painted or stained with a deep brown or black colour. In the second, the black deposit is more abundant, and forms a distinct layer on the surface of the serous membrane above which it slightly projects. The consistence of the matter thus deposited resembles in general that of jelly, and is enclosed either in a soft spungy cellular tissue, or fine transparent serous membrane of new formation; so that, when pressed, it feels pulpy, but is not removed by the finger or a scalpel passed over it, unless some force is employed. It is rare and limited in extent in man, but it is sometimes considerable in the horse, and is chiefly found on the peritoneum, pleura, and pericardium.

*Liquiform Melanosis.* It has in general been confined to natural or accidental serous cavities. Among the former, the cavities of the pleura and peritoneum furnish almost the only examples in which the liquid melanotic matter has been observed, and that too in very small quantity. The accidental serous cavities in which it has been found are those which constitute cysts, particularly in the ovaries.

*Bulk.* The quantity of melanotic matter is often considerable. The largest masses are found in loose cellular tissue, and are always composed of a number of smaller ones; but single masses of the largest size have been discovered in the liver. Masses have been found in the former situation in the horse, weighing from twenty to forty pounds.

*Colour.* This ranges from black to brown. The deep black colour and glossy aspect are more frequently met with in inferior animals than in man, and in both these appearances are most marked when the deposit exists in the form of a firm tumor.

*Consistence.* It is entirely dependent on the nature of the part in which the black deposit is retained. It is never found solid in serous cavities—in the tumors attached to the serous covering of those cavities, it is liquid or gelatinous—it is occasionally fluid in loose cellular tissue—in the cutis it is nearly as hard as cartilage—it is of medium consistence in the lymphatic glands and in the brain, &c. At an indefinite period of its formation, the solid melanotic tumor is observed to lose its consistence, and ultimately to become converted into a soft or almost fluid mass. This softening process is analogous to that which occurs in many morbid growths, especially in those of the fungoid character. Dr. Carswell believes that it is effected by the destruction of the tissues which surround or are inclosed within the melanotic tumor, and the simultaneous effusion of serosity. Inflammation rarely accompanies this process, and when ulceration and sloughing occur, they appear to be chiefly owing to the melanotic matter compressing or obliterating the bloodvessels of the tissue in which it is contained.

"The following may also be enumerated as physical characters of the melanotic matter. This matter is quite opaque, and has no marked odour or taste. In its natural state, or when mixed with water, exposed to the air it becomes dry, brittle, and pulverizable, and does not emit the odour of putrefaction until

after a long period. When burnt it swells, gives out a great deal of smoke a marked empyreumatic odour, and is converted into a carbonaceous substance." 5.

*Chemical Characters.* According to Barruel, melanosis of the human subject is essentially composed of the colouring matter of the blood, united with fibrine, both of them "se trouvant dans un état particulier,"—three distinct kinds of fatty matter—and a considerable quantity of phosphate of lime and iron. From the results of the various analyses it is obvious that the melanotic matter is essentially composed of the constituent elements of the blood, and probably the substance which confers its colour is a highly carbonized principle, having much analogy to the colouring matter of the blood.

*Anatomical Characters.* When a single encysted tumor is divided, and a quantity of the melanotic matter removed by pressure and ablution, it is found to be traversed in every direction by a multitude of fine filaments and lamellæ connected with the capsule at the periphery.

"When a number of melanotic tumors are grouped together, they are included in a common capsule, and separated from one another by their respective coverings, and portions of cellular tissue contained in the angular spaces sometimes left between them. It is in these filamentous and cellular tissues alone that blood-vessels or nerves are to be seen. Minute arteries and veins may be observed ramifying in both, but they never pass beyond the limits of these tissues. Large branches, and even trunks of arteries and veins, are sometimes found passing over the surface, or included in the aggregated masses of melanotic tumours." 5.

The cellular tissue is usually not abundant in quantity. In some rare instances it exceeds the melanotic, but this is when the latter is deposited in fibrous, carcinomatous, or erectile structures, constituting compound tumors.

"Melanosis is more frequently combined with carcinoma than with any other disease, but there is no similarity of nature in these two diseases, their anatomical, physical, and chemical characters being totally different; several varieties of the former are highly organized, while the latter is an unorganized substance, injurious only from its quantity, the number of organs which it affects, its situation and mechanical operation." 6.

We do not feel so confident as Dr. Carswell seems to be upon this point. The frequent combination of melanosis with carcinoma is suspicious—the invasion of many organs in succession by the former is suspicious also—the tendency of melanotic tumors to softening and to destruction by ulceration and by sloughing, is another feature calculated to encourage the idea that too near a relationship exists between melanosis and carcinoma. We would pause in the present state of our knowledge on these subjects, before we would subscribe to the positive assertion that melanosis is only injurious from quantity and situation. We require more facts, more time, more observers, to determine a circumstance of this importance.

Spurious Melanosis. This, it will be recollected, was divided by our author into four varieties. The first is, *From the Introduction of Carbonaceous Matter.* It occurs only in the lungs.

*Physical Characters.* Both lungs present one uniform black carbonaceous colour, in which the bronchial glands participate. The pulmonary tissue is more or less indurated and friable, infiltrated with black serosity, and broken down in several parts in irregular excavations, sometimes of considerable size.

*Chemical Characters.* A minute analysis was made by Dr. Christian, of a quantity of the black matter taken from a patient who died of this disease in the Royal Infirmary of Edinburgh. Waiving the particulars, we may content ourselves with stating, that a portion of black powder left after the action of concentrated nitric acid boiled on the black matter, gave the ordinary products of the distillation of coal. A gas of the same quality was procured, and likewise a naphthous fluid, holding in solution a crystalline principle, analogous to, if not identical with naphthaline.

Dr. Carswell considers it as clearly proved by this interesting case and satisfactory analysis, that certain forms of black discolouration of the pulmonary tissue originate in the inhalation of the carbonaceous product of ordinary combustion.

The second form of spurious melanosis is that from the *Action of Chemical Agents on the Blood.*

"The black discolouration of the blood which belongs to this division of spurious melanosis, is produced by the operation of an *acid* chemical agent. It is, consequently met with only in those organs in which this agent exists as a healthy or morbid product, or to which its influence occasionally extends. Hence, as the stomach is the only organ in which an acid fluid is formed, and is, at the same time, a healthy product, this kind of black discolouration of the blood is no where so frequently observed, so conspicuous, and so extensive as in this organ.

The same discolouration of the blood occurs also in the intestines from the anormal formation of a fluid and gaseous acid product. It is owing to the proximity of the peritoneum to these normal and anormal acid products, that blood situated beneath this membrane, on its free surface, or in its cavity, undergoes so often the change of colour in question; and it is owing to the same circumstances of situation, that portions of the liver and spleen are so frequently found to present the same black colour.

The black discolouration of the blood may be effected during life or after death; but before it can take place during life, the blood must have ceased to circulate. This fluid may be contained in its proper vessels, or effused into the cavity of the stomach, intestines or peritoneum." 7.

*Colour.* This varies from a dull yellow to that of a bistre, or soot. The brown and black tints are most frequent in their occurrence—the yellow and orange are seldom seen except in the mucous membrane of the stomach.

*Forms.* They are determined by those of the organs in which the blood is contained; they are the punctiform, ramiform, stratiform, and liquiform.

The punctiform and ramiform black discolourations of the blood have their seat in the capillaries and the veins, and are best seen on the internal surface of the stomach, where they most frequently occur. They always occupy that part of the organ in which the gastric acid is contained after death. They present an appearance similar to what would be produced by injecting the capillaries and veins of a portion of the stomach with a mixture

of chocolate or soot and water. Their extent is proportioned to the quantity of gastric acid—the degree of discolouration to the amount of blood contained in the vessels. In the stomach this is always accompanied with the chemical dissolution of its coats.

The ramiform black discolouration of blood from the presence of an acid is seldom met with in the intestines, but the punctiform is not uncommon. The latter takes place in the capillaries of the villosities, and in those around the orifices and basis of the follicles. When the villosities are the seat of the discolouration, the surface of the mucous membrane appears as if it had been dusted all over with fine powdered charcoal, which gives to it a deep grey or slate colour. The discolouration may occupy the orifice of a number of contiguous isolated follicles, or of the aggregated follicles, and give rise to an appearance resembling acne punctata; or it may surround the orifice or basis of the isolated follicles, when it has an annular form.

The ramiform discolouration is met with occasionally on the peritoneum, in cases of chronic tubercular peritonitis. The tubercles are surrounded by a dark ring, or a multitude of minute vessels filled with black blood, either grouped close together, or having a stellated arrangement. The tubercles, if small, are thereby greatly obscured, and the peritoneum appears as if spotted with a deep brown or black pigment.

The *stratiform* black discolouration is most frequently observed on the peritoneum, in its subcellular tissue, or in false membranes when blood has been effused upon the former, or into the latter. The discolouration varies in extent—and in its tint, ranging from black to brown or even red.

The *liquiform* black discolouration of the blood is produced by the effusion of this fluid into the cavity of the stomach, intestines, and peritoneum. It forms the black vomit and melœna. In the large intestines and in the cavity of the peritoneum its blackness depends, perhaps, more frequently on the presence of sulphuretted hydrogen than on an acid.

*Black Discolouration from Stagnation of the Blood.* This has long been known to follow retarded or interrupted circulation. There are, according to Dr. C., only two organs, the respiratory and digestive, in which this change of the blood bears any resemblance to true melanosis. In the lungs the black discolouration of the blood accompanies all those diseases which impede mechanically the capillary circulation, and render the function of respiration imperfect. It may pervade the whole lungs, a limited portion of their tissue, or a multitude of spots or minute points. It is never so intense when general as when partial. It occurs not only much more frequently, but has a deeper tint in the summits than in any other portion of the lungs.

The blood in this state of discolouration constitutes the "Matière noire pulmonaire" of Laennec. It may exist either alone, or in combination with accidental products, and presents the three following forms, viz. the punctiform, ramiform, and maculiform. Of the two former we need say nothing. The latter is seldom met with except in the upper lobe of the lung in old persons.

"A portion,—most frequently the summit, or the whole of this lobe,—is often found in them studded with dark grey, purple, blue, and black spots. The pulmonary tissue contains little or no air, is firm œdematous, or quite hard and

somewhat dry. Masses of a putty-looking or cretaceous substance, of fibrous, cartilaginous, or osseous tissues, are generally seen lodged in the darker portions of it, and the bronchi and bloodvessels are either much compressed or obliterated. This kind of discolouration follows the cure of tubercular phthisis, and is obviously the consequence of the interrupted state of the venous circulation in the affected part of the lung." 10.

We fear we know too little of the actual condition of the lung *after* the cure of tubercular phthisis to permit us to decide very confidently on the affection of the tissues left behind. Dr. C. remarks that the grey slate colour of the indurated pulmonary tissue which forms the boundaries of tubercular excavations is of the same nature as the preceding.

We need not touch on black discolouration of the bronchial glands. It is sufficiently familiar.

Black discolouration of the blood from stagnation in the digestive organs, is confined to the villous and follicular structures of the mucous membrane.

We cannot close the notice of the letter-press of this fasciculus, without exprsssing our high opinion of the philosophic and exact description of melanosis which the author has presented. We think he has divested himself of that leaning towards theory which he displayed in the earlier portions of the work—a leaning which we took the liberty to criticise, as peculiarly inappropriate to so rigorous a study as morbid anatomy.

The plates are four in number and contain 23 coloured figures. We do not think them equal to some of the same author's, in other parts of the same work, but they are not deficient in pictorial beauty. It would be useless to compose a catalogue of drawings not presented to the inspection of our readers, but a hasty glance at the subjects represented may not be totally devoid of interest.

The first plate displays true melanosis of the liver, the lung, the skin, and the cellular tissue, the two latter instances being taken from the horse; it also shews a compound melanotic tumor. This consists chiefly of fibrous tissue, between the lamellæ of which the melanotic matter is deposited.

The second plate contains seven figures illustrative of a remarkable case of melanosis that occurred in an old man, who was taken to the Hôtel Dieu. Brown or black coloured tumors were contained in the brain, the epiploon, and ileum. The tumors were of the compound character, being composed of true melanosis, combined with carcinoma and erectile tissue.

In the third plate are delineated a portion of the liver affected with melanosis and carcinoma, the latter being much more abundant than the former —the black discolouration of the lungs from the inhalation of carbonaceous matter—the black discolouration of the same organ from stagnation of the blood—the same in the lung and bronchial glands from a mechanical obstacle to the return of the venous blood—and, finally, the black discolouration of the blood in the villous and follicular structures of the intestines.

The fourth plate exhibits several forms of black discolouration of the blood from the chemical action of the healthy gastric acid, fluid, and gaseous acid products formed accidentally in the intestines.

We cannot quit the fasciculus before us without expressing the gratification we have derived from its perusal.

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The ninth fasciculus of the work of Dr. Hope is devoted to Hypertrophy

of the Tissues of the Intestinal Canal, to scirrhus, and to Cancer. In the tenth, Diseases of the Ovaria are considered, and Diseases of the Uterus commenced.

*Hypertrophy of the Tissues.* Dr. Hope describes, in succession, hypertrophy of the submucous, the muscular, and the subperitoneal tissues. The principal seat of this affection is certainly the submucous; it is found in a large proportion of cases of chronic diarrhœa, in which the mucous membrane has become diseased, and especially in the vicinity of old ulcerations. There is no part of the canal below the diaphragm in which hypertrophy of the submucous cellar tissues has not been observed; but it occurs principally in the parts most liable to chronic inflammation of the mucous membrane, namely, the stomach, the rectum, the colon, and the end of the ileum. Hypertrophy of muscular coat is found principally where that coat is naturally of the greatest thickness, namely, in the pylorus and pyloric third of the stomach, in the cardia, the rectum, and the colon.

"Contraction of the pylorus is occasionally attended with enormous dilatation of the stomach, which has been known to reach even to the ossa pubis (*Andral, Clin. Med.*) Under these circumstances, the walls are sometimes attenuated, and sometimes of natural thickness. The dilatation arises from distension of the organ by accumulations of food which cannot pass through the pylorus. After the lapse of several days, the stomach, distended to the extreme, relieves itself by disgorging its contents; and hence says Andral, arises those vomitings, so remarkable for their extreme copiousness, which supervene from time to time (every eight or ten days, for instance) in individuals labouring under contraction of the pylorus. When the contraction proceeds from carcinomatous tumours, the vomiting ceases when the ulceration of the tumour leaves the orifice free; but the symptom recurs in proportion as the tumour is regenerated. It occasionally happens that similar dilatation of the stomach takes place when the pyloric orifice is enlarged; an anomaly which is explained by the thickened walls of the viscus having lost their tonic contractile power, whence they allow accumulation to take place, as in an inert bag. When the pylorus is much thickened, a tumour may sometimes be felt externally; and when the whole stomach is diffusely thickened and contracted, without forming any particular tumour, an unusual resistance is, in some cases perceptible over the whole epigastrium.

In the small intestines, hypertrophy of the submucous tissues is rare, and it is generally confined to a particular spot, of small extent. Sometimes the symptoms of stricture are produced by it, and increase from time to time to those of strangulation, of which the patient, after several relapses, usually dies. The intermittent nature of the symptoms of strangulation is ascribed by Andral to temporary tumefaction of the mucous membrane of the contracted portion; but it is also certain that the mere circumstance of distension of the gut above the stricture will, in contractions of a certain form, tend to close the passage." 215.

In the colon, hypertrophy is more common at its two ends than in the middle, because at those ends, the mucous membrane and follicles are more subject to disease. The thickening is in general attended with contraction of the gut; but sometimes the reverse takes place, and the walls, having lost their contractility, become dilated into a cyst with thick and hard parietes, forming adhesions with the contiguous parts, and presenting externally the feel of an abdominal tumour.

Stricture of the rectum or of the colon is in general nothing more than

hypertrophy of the submucous cellular tissue, succeeding to irritation and thickening of the mucous membrane itself. We have seen an instance of contraction of the rectum, resulting from the cicatrization of ulceration of the mucous membrane.

Condylomata around the anus are formed by hypertrophy of the submucous cellular tissue, covered with the thickened and more or less injected mucous membrane, with the gut, and by the cuticle external to it. There are many instances of condylomata, in which the elevations are circular and flat upon their surface, and which essentially depend on interstitial deposition into the texture of the cutis itself. Of this we have satisfied ourselves in many venereal cases. When such condylomata are superficially ulcerated, as they often are, they constitute one variety of the elevated ulcer, or the condylomatous sore, and are followed by secondary symptoms.

Hypertrophy of the intestinal canal occurs most frequently between the ages of thirty-five and sixty-five, and is very rare between puberty and thirty-five. It is not uncommon in children between the ages of four and twelve, when of unhealthy constitutions and subject to chronic diarrhœa.

Dr. Hope proceeds to the consideration of scirrhus. The distinction between hypertrophy and scirrhus, though generally free from difficulty, is sometimes difficult. Occasionally they merge into each other.

"Hypertrophy is apt to pass into schirrhus, because the local irritation, while it gives rise to an increase of the natural nutritive function, also favours the separation of cancerous matter from the blood, if a tendency to the disease preexisted in the system. But the morbid deposition may likewise take place as a primitive lesion, wholly independent of previous hypertrophy; and the resulting appearances may be so similar, for a time to those of hypertrophy, that the discrimintion can only be effected by collateral evidence. Namely, in cancer, the disease is commonly of limited extent; in hypertrophy many feet of the canal are often affected; cancer is more confined to the stomach and rectum than hypertrophy, it is attended with greater thickening of the walls, the muscular coat is more frequently implicated, and there is in many instances a coexistence of cancer in other organs, particularly the liver. When the morbid deposition has advanced so far as to become divided into lobules by fibrous intersections, or hollowed into cells or areolæ filled with gelatinous matter, these physicial characters alone are sufficient to mark the cancerous nature of the disease."

There is a circumstance which should always be remembered in pursuing investigations of this nature. Morbid growths ulcerate and are incurable without being actually scirrhus. They form the link between the latter and simple ulcerations. Thus the eyelids and the sides of the nose of old people are subject to a disease, which begins as a tubercle in the skin or the subcutaneous texture.

Dr. Hope passes over the slighter varieties of schirrhus, to expatiate on that form which has been denominated by Cruveilhier *areolar gelatiniform cancer.*

It consists of a transformation of the affected tissue into a fibrous alveolar web, filled by a sort of transparent jelly. In the highest degree of the alteration, all kind of organization has disappeared: no trace of vessels is longer to be discovered, and all the tissues, however heterogeneous, seem brought to one uniform morbid type. Cruveilhier believes that in this, as in all other instances of organic degeneration, the primitive seat of the deposition is the cellular tissue.

It occurs in two forms; 1, in disseminated masses, varying from the size of a millet-seed to that of a turkey's egg, or more; 2, uniformly infiltrated throughout the substance of the organ affected.

1. In the disseminated form, the disease sometimes presents a few detached prominent tumours, with heads broader than their bases; they may attain the size of turkey-eggs. Sometimes it exhibits an infinite number of small, contiguous, and coalescing tumours, diffused over a greater or less extent of surface. Whatever be their size and number, whether isolated or coalescing, they are soft, spongy, semitransparent, and, when examined attentively, are seen to consist of areolæ infiltrated with gelatiniform matter. They are considered by Cruveilhier to be nothing more than mucous papillæ, prodigiously developed by the morbid deposition.

2. In the infiltrated form, the gelatinous matter is deposited uniformly throughout the substance of the organ, the part then maintaining its general shape, but undergoing a remarkable thickening. In the stomach, the submucous tissue is usually affected before the mucous. Sometimes the deposite commences separately in the muscular and submucous textures; more commonly it is propagated from one to the other by continuity of tissue, the muscular coat, according to Cruveilhier, becoming hypertrophous, and divided into fasciculi by fibro-cellular partitions, along which the gelatinous deposition spreads.

"Areolar gelatiniform cancer, though found in the rectum, the cæcum, and occasionally in the ileum, is in no part of the alimentary canal so frequent as in the stomach. In this organ it exhibits, in common with the other varieties of cancer, a predeliction for the pylorus; but it extends its ravages on each side, generally to a limited degree on the duodenal side, but often over a large space on the side of the stomach of which it may pervade a third, a half, and even the whole. After the pylorus, the lesser curvature is the part most liable to the first attack of the disease. The exterior of the organ often presents a lumpy surface, from the unequal contraction of the muscular coat, and the absorbents are occasionally seen ramifying on it, charged with cancerous matter, and presenting the appearance of knotty cords of a whitish or translucent greyish colour. The veins also are sometimes charged with the same matter." 221.

We must introduce another quotation, and that rather a long one.

"The present species of cancer is an extremely obscure disease, in reference both to its local and its constitutional symptoms. The only characteristic local signs which it offers are those of a mechanical obstacle to the passage of the food. In the absence of these, and of an external tumour or induration, the symptoms are such as cannot be distinguished from those of chronic inflammation or irritation; and patients are found to live and carry on digestion for a considerable period, when half, three-fourths, and even the whole of the mucous membrane is deficient! The constitutional symptoms, according to Cruveilhier, acquire the characters of cancerous cachexy more slowly than in any other variety of cancer; they exhibit less of general re-action and irritation, and the deposition itself seldom takes place, simultaneously or successively, in any considerable number of different parts.

The reason why areolar gelatiniform cancer is of so sluggish and chronic a nature appears to me to be, that it possesses exceedingly little vascularity; whence it has no intrinsic power of extension and propagation—in this respect forming a strong contrast with encephaloid cancer, which, by its high vascularity, effects its own reproduction with surprising celerity.

It is rare, according to my observation, to see well-marked encephaloid cancer

affecting the submucous tissues of the alimentary canal, the ordinary form of the disease in these parts being scirrhus, under which term I include *areolar gelatiniform cancer*. Sometimes, however, we see an opaque whitish matter deposited in spots in the midst of hypertrophy of the submucous tissue or of the muscular coat. Thus, it is seen in connexion with an encephaloid tumour, adherent to the peritoneum.

The observations which I have made on vomiting, in consequence of contraction of the pylorus by hypertrophy, apply equally when the obstacle is occasioned by cancer. But a mechanical obstacle is not the only cause of vomiting in cancer; for, independent of any obstruction, it may result from the morbid irritability of the stomach in the advanced stage of the disease, and especially when the surface of the organ is denuded by ulceration. In this case, the vomiting, instead of being periodical and affording relief, comes on promptly after the introduction of ingesta, and the straining is attended with pain, sometimes of great severity. At this period of the disease, the matter ejected is generally spotted, streaked, or freely intermixed with a substance resembling coffee or chocolate-grounds, or lees of wine. This is blood extravasated from the disorganized surface, and changed by exposure for a sufficient period to the action of the gastric juice. It generally augurs a near approach of the fatal termination. I have already shown that a similar matter may be a product of exhalation from the mucous membrane in cases of chronic gastritis, and that it even takes place in the vessels themselves when the mucous membrane is removed by softening. The same dark matter may appear in the excretions when cancer has affected the intestines, and, by ulceration, led to hæmorrhage. In this case, the discolouration of the blood is effected by the intestinal fluids and gases, which, like the gastric juice, have acid qualities." 223.

We feel inclined to believe that in cases of cancer of the stomach, diarrhœa and black dejections occasionally supervene, independently of affections of the intestines themselves. We lately saw a case of ulcerated scirrhus of the cardiac end of the œsophagus and contiguous portion of the stomach, in which there had been diarrhœa, with melæna, previous to the patient's death. There was no disease of the mucous membrane of the bowels, but a quantity of grumous liquid was contained within the stomach. Probably the blood and the discharge from an ulcerated scirrhus of the cardia, acted on by the acid of the stomach, would prove of itself a sufficient cause of irritation to the bowels to occasion diarrhœa. Such would appear the explanation of the circumstances, in the case to which we have alluded.

Dr. Hope next proceeds to diseases of the peritoneum. His glance at them is so hurried, that we need not follow him. From these diseases he passes to the consideration of external cancer. The remarks on softening of the scirrhous tumour are deserving of attention.

"At a certain period of its progress the scirrhous tumour softens in its interior. The softening is not the result of inflammation, but of an obstructed state of the circulation, resulting sometimes from congestion, and sometimes from partial compression of the vessels by the unequal developement of certain portions of the tumour, whereby the circulation through other portions is intercepted. The function of nutrition may thus be suddenly modified or wholly suspended over a large extent; and hence we sometimes see firm tumours undergo complete softening with surprising rapidity. The softened portion consists of sloughy matter, held losely together by remains of cellular tissue and blood-vessels, and intermixed with a muddy serous fluid of variable consistence, and occasionally with blood. Hæmorrhage, however, is much less frequent in schirrhous, than in encephaloid tumours.

From the explanation now given, it will be apparent that softening does not

necessarily commence in the centre of the tumour, but at any part, the circulation to which happens to be intercepted. The centre, in fact, occasionally presents a nucleus of such density as to be the last to undergo softening; for, not only is the vascularity of scirrhus less in proportion to its degree of induration, whence there is an inferior *direct* tendency to softening; but the circumstance of the density renders the circulation less liable to be intercepted by unequal compression." 227.

Dr. Hope remarks that the circumstances of their development exercise a very important influence on the character of scirrhous tumors. The presence or absence of compression, and the nature of the tissue in which they are seated will probably, when properly considered, resolve into a few simple principles many of the apparent inconsistencies and anomalies which perplex this subject. Dr. H. adverts to the difficulty of distinguishing with any precision the malignant from the non-malignant growths. He quotes the opinions of Mr. Lawrence and M. Andral, opinions which display, without diminishing the difficulty. Like a philosophical observer, he has made it his object to offer accurate delineations and descriptions, rather than to venture, without a clear perception of his path, into the misty regions of generalization.

## Diseases of the Ovaria.

Dr. Hope makes some remarks on the physiology of the ovaria, and on conception, Leaving these, we may pause for an instant to glance at chronic inflammation of the ovaries.

This is generally attended with little or no pain, and is therefore insidious. It occasionally converts the ovarium into a sac full of pus, the quantity amounting in one instance to twenty pints. The sac sometimes becomes softened and perforated, and the pus is either discharged into the sac of the peritoneum, exciting fatal peritonitis; or, what is more common, into the uterus, vagina, bladder, or intestines. In such cases recovery is not uncommon. Dr. H. saw a case in St. Bartholomew's, under Dr. Latham, where two pints were passed suddenly *per vaginam:* the tumor subsided at the same moment, and the patient recovered.

The description of ovarian cysts is concise but good. Our author passes in review the simple cyst—the multilocular cyst—their various contents—and, finally, malignant diseaese of the ovaria. He conceives that our means of diagnosis are not sufficiently distinctive, whilst the diagnosis itself is a matter of importance. In the early stage, the diagnosis from ascites is, for obvious reasons, not attended with much difficulty. We recollect a curious and rather ridiculous instance of mistake. A young lady had a tumor of about the size of a large fist, in the right iliac region. It was moveable, but not beyond the medial line—firm—apparently issuiug from the pelvis. There was numbness in the right lower extremity, and a tendency to œdema in that foot. The health was indifferent—the catamenia were said to have been absent for a month or two. A hospital surgeon who saw the case pronounced that it was ovarian tumor—a physician coincided with him. The tumor increased in size, and began to occupy the centre of the abdomen. The surgeon was examining it one day when he felt a motion of no

dubious character. The young lady was pregnant. After delivery no tumor could be found. The following hints on diagnosis are useful.

"When the tumor fills the whole abdomen, the diagnosis is more difficult: here, however, percussion affords excellent, and, with ordinary care, conclusive signs. In ascites, the intestines float upon the fluid, and the resonance on percussion is hollow in the most elevated situations—and invariably so in the umbilical and epigastric regions. (Piorry's ivory Plessimeter is here preferable to the hand.) On the contrary, the ovarian tumour being developed *in front* of the intestines, which it forces back, the most prominent part of the tumour is always dull on percussion. Further, to a practised ear, the dulness on percussion of an encysted dropsy is much greater than that of ascites; since, in ascites, the layer of fluid before the intestines is never so thick as to prevent a certain degree of resonance from being elicited by firm and smart percussion. Again, fluctuation is more distinct in ascites than in ovarian dropsy, unless much tympanitic, tension coexist with the ascites—a very common case: but here, fortunately, the high degree of resonace affords an unequivocal diagnostic sign. In ovarian dropsy, the neck of the uterus is usually drawn up out of reach. The general symptoms also are different, ascites being almost always connected with some old organic disease of the liver, heart, or kidneys, and attended with infiltration in other parts; while ovarian dropsy may exist independent of them, and may even be compatible with a perfect state of the general health.

The single gelatinous cyst cannot be physically distinguished from the single serous cyst—the feel and fluctuation of both being the same; but the multilocular cyst may often be distinguished from the unilocular, by its inferior degree of fluctuation, and, still more, by its uneven surface perceptible through the abdominal parietes or through the vagina and rectum. Encephaloid ovarian tumours may often be detected by their uneven, or unequally resisting surface, by the rapidity of their development, by frequent attacks of acute pain from local inflammation of the cyst, and by the general symptoms and appearance of cancerous cachexy." 241.

Dr. Hope proceeds to the diseases of the uterus and its appendages. He successively adverts to uterine peritonitis—in inflammation of the uterine appendages, and of its proper muscular and mucous tissues—to inflammation and suppuration in the uterine veins and absorbents. We have recently adverted to these topics at such length, that we are compelled to quit our able author on his entrance into this interesting region.

The plates of these two Fasciculi are fully equal, if not superior, to any of their predecessors—a merit and an eulogy of no mean character. They consist of thirty-one figures, some of larger, some of contracted dimensions. They illustrate the subjects considered in the text. Cancer—hypertrophy of the submucous tissue—chronic peritonitis—the physiology of the Graafian vesicles and ova, and diseases of the ovaria—uterine peritonitis and phlebitis—and crural phlebitis are delineated in the plates before us.

It is difficult and almost needless to select particular instances for commendation. We will slightly allude to two or three drawings of interest or beauty.

Fig. 177 is a good representation of a striking case of stricture of the sigmoid flexure of the colon. The stricture was composed of a gristly substance resulting from hypertrophy of the submucous cellular tissue. The narrowest part of the stricture only permitted the introduction of a bougie one-third of an inch in diameter. The mucous membrane was thickened, tumid, lumpy, and vascular, filling up the passage, so as to prevent the des-

cent of water through it by its own gravity. The adipose tissue beneath the peritoneum was vascular and lax. The mucous membrane above and below the stricture was of brown colour from chronic inflammation.

The brief notes of the case are added by our author. They display the main features of what attracted much interest at the time of its occurrence.

"Mrs. Webb, æt. about 40, at St. George's Hospital, June, 1829, under Dr. Seymour; she was emaciated, and had had no alvine evacuation for a month. Intestinal tympanitis: severe bearing-down pains in the hypogastrium for two months; obstinate constipation for two years. A considerable tumour was felt projecting into the vagina between the cervix uteri and the rectum, and the same could be felt in the rectum. It suddenly disappeared when pressure was exercised upon it simultaneously per vaginam et rectum.

Ol. croton, &c., had no effect, and enemata could not be forced above the obstacle, even with the aid of a stomach-pump tube. Increase of pain and tympanitis; pulse very quick; anxiety; incoherence; death on the fifth day.

*Sectio.*—The tumour felt per vaginam et rectum was the right ovary, as large as a kidney, which had probably been forced into that situation by the inflated intestines, and was driven back again by the pressure with the fingers. The intestinal obstruction was occasioned by the stricture delineated in the Fig. seated about ten inches up the gut." lxx.

The 180th Figure is a beautiful example of areolar gelatiniform cancer of the stomach. For this Dr. Hope is indebted to Cruveilhier.

Dr. Hope incidentally remarks, that to areolar gelatiniform cancer confluent in the adipose tissue, Mr. Abernethy gave the name of pancreatic sarcoma.

Fig. 185 is a fine drawing of ulcerated cancer of the mamma. It shews the co-existence of scirrhus and encephaloid disease, and many, if not most, of the stages of both. The patient died in a week after amputation of the breast, which was performed by Mr. Keate.

The history of a tumor displaying the characters ascribed by Mr. Abernethy to "vascular sarcoma" is not devoid of instruction.

"*Case.*—A woman, æt. 60, in the Edinburgh Infirmary. The tumour was seated in the middle of a puckered cicatrix, from which my friend, the late Mr. George Bell, informed me that he had removed a large ulcerating cancer fourteen years before. The present tumour, which had grown rapidly, was removed by Sir George Ballingall. Two years subsequently, when travelling in the Highlands, I accidentally met my old patient, and was sorry to find that a new tumour had recently begun to form in the same spot." lxxv.

The drawing of cirrhosis is well executed.

We can afford but a few lines more to Dr. Hope. We would direct particular attention to the delineations of the uterus and ovary of the recently impregnated female—to that of encephaloid tumour of the ovarium—to that of encysted tumours of the same organ—to that of uterine phlebitis—to those of crural phlebitis. The fear of appearing too encomiastic prevents our saying more.

The very brief space that remains compels us to defer a particular notice of Cruveilhier till our next. We shall then endeavour to lay before our readers a complete, and, we hope, an instructive account of this and other works that may appear, in the interim, on the subject of morbid anatomy.

We have little space left for even commendation of the labours of our military brethren at Chatham. Some statements, cheering to the lover of the profession, flattering to the parties immediately concerned, are contained in the preface to the drawings.

"The collection having received great and many additions, a descriptive Catalogue of it was published a few months ago for the use of the Medical Officers; and in now publishing a Second Fasciculus, it will be observed that reference is made in the Plates to short descriptions of the preparations enumerated in that Catalogue: but besides these short descriptions, a much more extensive Manuscript Catalogue exists at Chatham; and further, there are deposited in the Library there, fully detailed cases of patients from whom preparations have been made, and comprised in not fewer than 300 folio volumes of Clinical histories, and to which, as well as to the preparations, ready reference may at all times be had."

"There are in the Anatomical Museum at Chatham abundant materials for continuing the Work when it can be done with advantage. They are

1420 Preparations in Morbid Anatomy.
500 Preparations in Natural Anatomy.
372 Preparations in Comparative Anatomy.
500 Paintings, Drawings, Casts, &c.

The Library of the Medical Department, commenced in 1822, now contains nearly 2600 volumes."—*Preface.*

The first plate is illustrative of phthisis laryngea—the false membrane formed in croup—the sequelæ of varioloid pustules in the larynx—and the consecutive stages of the pseudo-membranes consequent on inflammation of the pleuræ. The third plate elucidates several diseases of the lungs. It is managed well. The fourth plate exhibits a beautiful view of the effects of pericarditis. The adhesions of the pericardium are shown, and should be remembered, as a consequence of this affection. A hypertrophic heart and an aneurism of the abdominal aorta form the main subjects of the fifth plate. Scirrhus and dissolution of the stomach occupy the sixth. The seventh is devoted to the pathology of the mucous and the peritoneal membrane of the intestines. The morbid anatomy of dysentery, and scirrhus of the ileo-colic valve are figured in the eighth. The ninth and last displays an enormous abscess in the liver—hydatids—melanosis, and what is denominated the *tuberculated liver.* With an abstract of a short memorandum on the latter we lay aside the pen. Yet we cannot do so without an earnest recommendation to our affluent professional brethren, to scientific bodies, and to book societies, to encourage the works of which we now take leave.

"The term tuberculated (says the compiler of the descriptions of the plates) might be changed with propriety as the bodies delineated (of a firm texture and brownish or dirty yellow colour,) have not the characters of the objects generally denominated tubercles: it is, however, retained here for want of a better. What the exact composition or nature of these tubercles is, does not seem to have been yet satisfactorily explained. Some suppose them to be produced by hypertrophy of the white substance of the Liver, others by a new deposit; but from the examination of a series of specimens in this Museum, showing their progressive stages of developement, it appears as likely that they consist of an alteration of the red substance of the organ combined with, probably, some new deposition. Livers containing these bodies are usually very small and hard, and jaundice with ascites are generally attendant symptoms."

## II.

THE ANATOMY AND PHYSIOLOGY OF THE LIVER. By *Francis Kiernan*, Esq. Member of the Royal College of Surgeons, late Teacher of Anatomy. London, 4to, pp. 60, 4 Copper Plates. 1833.

[From the PHILOSOPHICAL TRANSACTIONS.]

THE progress which has lately been made on the Continent, in the departments of anatomy, physiology, and pathology, should give rise to serious reflections in the minds of the scientific members of the medical profession in Britain. It may not be flattering to our national vanity or pride, indeed we should grieve if they were not seriously mortified, when we consider that our best modern works on descriptive anatomy, and most of our advances in the anatomy of disease, are borrowed or are stolen from the Germans and the French.

The fact is too true—the explanation is not difficult. We are not deficient in invention—in steady industry we are unequalled—necessity presses too hardly on many of us—why, then, are we beaten by the foreigners, in the most exact and most philosophical province of medicine? The reason, alas, is obvious and humiliating. Money is a secondary object abroad—it is the alpha and omega of this land. However high-minded a man may be—however he may smile at fashionable folly, and scorn the prostration of the vulgar before aristocracy and wealth, he is soon made to feel that science and professional enthusiasm are sorry defences against the real evils, and as real contumely, that poverty entails upon her followers here. If there ever was a country in which the want of property was looked on as a crime, that country is England now. The philosopher out at elbows, shunned by society, famished by want, finds no alleviation of his actual hardships in the kind and specious consideration of the world.

How different it is abroad, those who are acquainted with foreign manners can amply tell. The littérateur there lives upon a little—mixes with society—is treated with respect—and forms a portion of scientific côterie, possessed of spirit, and energy, and influence. True, there is *the* exclusive class in Germany and France. But it is a class, and a small one too, and the man of science does not need, and does not pine for its entré. In England, the exclusives are of no special breed—they permeate all ranks—jaundice all eyes—and the spirit of aristocracy is the spirit of wealth. The poor of all trades and all professions are despised—they are a Pariah caste.

What wonder, then, that we struggle to make money. Mammon is our household god, the first of our Di Penates. Without him, we possess no honour, no happiness. He *must* be worshipped.

Our neighbors have made provision for science in their numerous professorships. The moderate salary secures the professor the means of living, and, through the constitution of society, ensures his admission to the circles of his equals or superiors. Wealth is not necessary to distinction—perhaps it is almost unattainable. Ambition, which is ever active, points out the road to fame, and its effects are visible in the actual condition of medicine.

It is singular that Adam Smith objected to endowments, for the advance-

ment and encouragement of learning. He applied to science the political principle of supply and demand. This question is considered with some ability in a recent Number of the Edinburgh Review.* We will take the liberty of selecting one passage; it is a comment on the reasoning of Adam Smith, and follows a satisfactory answer to Turgot.

"The objection of Smith takes broader ground. He applies the principle of supply and demand (so conclusive in the facts with which the science of political economy is concerned) to our moral and intellectual nature. Wherefore, it is said, give bounties in the shape of endowments, and so pay beforehand for a thing, which, if it is worth having, will pay itself? The principle proscribes private, as well as state endowments; and even the help of voluntary subscription, as either superfluous, or false encouragements. How wofully far this is from being a correct picture of the appetence of mankind for moral, and religious, and scientific truths, is, alas! a matter of daily and melancholy experience. Every body is agreed that it is one of our first duties—but those who are best entitled to speak, are well aware, it is also one of our greatest difficulties—to create and accelerate this demand. The question is a question of fact, concerning human nature. May these things be left to find their level? or, unless a supply is forced, so as to be beforehand with the demand, is it not too probable that there will be no demand at all? On this point, Dr. Chalmers, in his very able, and not sufficiently known tract upon *Endowments*, appears to have left nothing essential to be added. A single exception, admitted upon principle, is fatal to the axiom on which Dr. Smith has grounded his proposition. He has himself tendered in this exception, by requiring that Schools should be provided for the *lower orders*. To recommend that food for the *mind* should be thus supplied them, and to insist that they may be trusted to procure food for the *body* for themselves, is to concede at once the true distinction between the two cases. But the distinction is not peculiar to the lower orders and to elementary learning. The rich are quite as averse as the poor to listen to, or to remunerate their instructors. Ask of the booksellers the market price of science. Ascending upwards, subjects of the mightiest import to nations and to mankind, would never remunerate their cultivators with bread and cheese. France and Germany, where literature is a great deal thought of, and riches very little, are quite aware of this. Men like Hooker, Jeremy Taylor, and Lock, if left to the profit they could make as tradesmen by the sale of knowledge, would scarcely get the wages of an expert mechanic. It is a fact which experiments enough have verified—no thanks to us—that knowledge has a reward of its own incommensurate with money." 496.

We need not state our reasons for concluding, that society is undergoing a perceptible revolution in this country. We are gradually approximating to the Continental standard. On some accounts this is well—on many it is not. Come what come may, we do hope that more encouragement will be held out to abstract science than has hitherto been offered. Endowments and professorships in medicine are wanted—especially in those departments where labour, without them, brings no reward, or none of that description which is indispensable for ease and comfort.

We have, not unnaturally, been led to these reflections by a glance at the work before us. It is almost a phenomenon—a laborious work upon anatomy by a gentleman in general practice.

Such attempts neither do nor can receive much public patronage or favour.

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* Edinburgh Review, January, 1834.

It is the duty of the profession to extend its hand in aid of inquiries like this. Mr. Swan is an example of what, under the present constitution of the profession, the laborious cultivator of anatomy may look for. That gentleman has been engaged for seven or eight years in the prosecution of his dissections and the preparation of his drawings. It cannot be doubted that they do credit to this country. Yet we venture to affirm that Mr. Swan has incurred much pecuniary loss, and we fear there is little prospect of an ultimate adequate return.

It has formed a subject of complaint that our colleges do not patronize labours of this description. They cannot. They may offer indeed to defray the expense of publication, as we hear that the College of Surgeons did in the case of Mr. Swan. But this is no recompense for years of toil, and the man who could afford to reject the paltry assistance, would feel humiliated at receiving the charitable dole.

We repeat that there should be in our profession the means of rewarding in an honourable manner the aspirant for purely scientific dissection. There is an ample field in anatomy, physiology, and pathology for young men of industry, talent, and zeal. But their ardour is soon chilled by the comfortless prospect that field displays. Years of toil are in the foreground—neglect and poverty occupy the horizon. They turn with dismay from the hopeless enterprize, and seek the means of subsistence and of fortune in intrigues for private connexion, and in cunning or desperate attempts to arrest the attention of the public.

The enormous taxes wrung from Englishmen are inadequate, it would appear, to enable our Government to do that for science which the needy and despotic authorities of the Continent have done. The philosopher may console himself with the flattering reflection, that the parasite of the minister and minion of the court have better claims than he upon the public purse. Whether a change in the feelings of the community and determination of the legislature may be reasonably anticipated, is more than we shall take upon ourselves to prophesy. We trust that so soon as the constitution of our own corporations has assumed a form of consistency and durability, this subject will attract their serious attention. We shall probably return to it when fitting opportunities present themselves.

We pass to the consideration of the work of Mr. Kiernan. The nature of the subject and the character of the description preclude a strictly analytical notice.

Mr. Kiernan adopts the following arrangement in his description of the liver:—first, he considers the lobules, their disposition, their connexions with each other and with the vessels; secondly, the surfaces of the liver and distribution of the vessels; and thirdly, the structure of the lobules. We shall, in some degree, confine ourselves to the parts which are most striking, or most important.

### OF THE LOBULES.

"The hepatic veins with the lobules present a tolerably accurate resemblance to the trunk, branches and leaves of a tree. The lobules may be compared to the leaves. The substance of the lobules is arranged around the minute branches of the veins in a manner which may be compared to the disposition of the parenchyma of a leaf around its fibres. The vessels in which the minute veins terminate may be compared to the branches of the tree, and these vessels

by their junction form the trunks. The hepatic veins may be divided into two classes; into those veins contained in the lobules, and those contained in canals formed by the lobules. The first class is composed of the intralobular branches, one of which occupies the centre of each lobule, and receives the blood from a plexus formed in the lobule by the portal vein. The second class of hepatic veins is composed of all those vessels contained in canals formed by the lobules. Numerous small branches, as well as the large trunks which terminate in the inferior cava, are included in this class; they all resemble each other in being contained in canals, and they differ from the vessels of the first class which are contained in the lobules. The intralobular veins terminate in some of these vessels, and not in others; these vessels therefore admit of being divided into two sets; 1st, those in which the intralobular brances terminate; 2nd, those in which no intralobular branches terminate. The lobules are arranged around the veins composing the first set, the bases of these bodies resting upon them; they may be called the sublobular hepatic veins, this term being applied to them merely to distinguish them from the trunks which compose the second set, and on which the bases of the lobules do not rest. The branches of the second set are formed by the junction of those of the first; the canals containing the former differ in the manner of their formation from those containing the latter. Every branch of the hepatic veins contained in the liver belongs to one of these two classes of vessels.

Each intralobular vein is composed of a central vessel, and of from four to six or eight smaller vessels, which terminate in the central vessel. The intralobular veins invariably correspond in form with the lobules, the substance of which arranged around them; and as these vessels resemble in some degree the fibres of a leaf, so sections of the lobules made in the direction of the vessels assume a more or less foliated appearance. The lobules are not, however, flattened bodies like leaves; for, as the smaller veins enter the central vein in every direction, so small processes project in every direction from the lobules, the number of processes being equal to the number of veins terminating in the central vein. The form of the lobules will be now easily understood; their dimensions are known to all anatomists. They are small bodies, arranged in close contact around the sublobular-hepatic veins, each presenting two surfaces. One surface of every lobule, which may be called its base, rests upon a sublobular vein, to which it is connected by the intralobular vein running through its centre, the base of the lobule thus entering into the formation of the canal in which the sublobular vein is contained. The canals containing the hepatic may be called the hepatic-venous canals or surfaces; and as the base of every lobule rests on a sublobular vein, it is evident that the canals containing these veins are formed by the bases of all the lobules of the liver. The external or capsular surface of every lobule is covered by an expansion of Glisson's capsule, by which it is connected to, and separated from, the contiguous lobules, and in which branches of the hepatic duct, portal vein and hepatic artery ramify. All the lobules resemble each other in their general form, and they are all of nearly equal dimensions; they appear larger when the section is made in the direction of the hepatic veins, and smaller when in the transverse direction. This is most apparent in that state of the liver usually called the nutmeg liver. In a longitudinal section of a lobule, the intralobular vein is seen running through its centre; and if on the surface of the section five of the projecting processes of the lobule be seen, five smaller veins will also be seen, one occupying the centre of each process, and all terminating in the central vein. In a transverse section of a lobule, the divided extremity of the intralobular vein is seen in the centre, and three or four processes of the lobule are seen shooting out in different directions. The vein being thus always situated in the centre, it sometimes happens that on the surface of a section of the liver, veins are seen in some lobules and not in others; this appearance is caused by the instrument, which, passing

obliquely through these lobules, divides some vessels, which thus become apparent, and passes either above or below others.

The superficial differ in one respect from the internal lobules. In the latter, the intralobular veins commence at a certain distance from the surfaces of these bodies, the substance of which completely surrounds them, except at the bases of the lobules, where the veins make their exit to terminate in the sublobular veins. By superficial lobules are meant, not only those which form the convex and concave surfaces, but those also the capsular surfaces of which form the canals containing certain branches of the hepatic duct, portal vein, and hepatic artery, and the canals containing the trunks of the hepatic veins, all these canals being tabular inflections inwards of the superficies of the liver. In all the superficial lobules, the intralobular veins commence immediately at the surfaces; these lobules appearing less perfect in form, or less developed, than those of the interior, or as if their upper portions had been removed, giving to the surfaces of the organ the appearance of the surface of a section." 715.

In alluding to the opinions of Mascagni, Mr. Kiernan makes the following remarks:

"Mascagni, adopting Malpighi's view of the arrangement of the lobules, compares the liver to a bunch of grapes; and this anatomist and Bidloo have represented the lobules appended to the extremities of the vena portæ. As certain branches of this vein first ramify between the lobules, and finally enter them, these bodies may be represented as appended to its extremities: and although every lobule receives branches from this vein, yet a certain number only are clustered around its trunks, with which they have no immediate connexion; whereas the base of every lobule in the liver is in contact with, and connected to, an hepatic vein.

The essential part of a gland is undoubtedly its duct; vessels it possesses in common with every other organ; and it may be thought that in the above description too much importance is attached to the hepatic veins: but relations similar to those which exist between these veins and the lobules, do not exist between the latter and the ducts, or between them and any other set of vessels; nor is there the same exact relation between the ducts and lobules as between these bodies and the hepatic veins, for a lobule with six projecting processes may have three times that number of ducts ramifying on its external surface, whereas the same lobule will have but six minute veins, one in each process, all of which terminate in the central intralobular vein." 716.

Passing over the account of the *external surface* of the liver, we may pause for an instant at that of the PORTAL CANALS.

These commence at the transverse fissure, where they are continuous with the concave surface of the liver; they contain the hepatic ducts, the portal veins, the hepatic arteries, and the vaginal branches of all these vessels, with the nerves and absorbents, enveloped in a sheath of cellular tissue, first described by Glisson, and called Glisson's Capsule. These canals, and those containing the large hepatic trunks, are formed by the capsular surfaces of a limited number of lobules; the canals containing the sublobular-hepatic veins are formed by the bases of all the lobules. As the portal vein is the largest vessel contained in them, they may be termed the portal canals.

Glisson's capsule is to the liver what the pia mater is to the brain; a cellulo-vascular membrane, in which the vessels divide and subdivide to an extreme degree of minuteness; which lines the portal canals, forming sheaths for the larger vessels contained in them, and a web in which the smaller

vessels ramify; which enters the interlobular fissures, and, with the vessels, forms the capsules of the lobules; and which finally enters the lobules, and, with the blood-vessels, expands itself over the secreting biliary ducts. Hence arises a natural division of the capsule into three portions, a vaginal, an interlobular, and a lobular portion; and as the vessels ramify in the capsule, their branches admit of a similar division.

At the transverse fissure the hepatic duct, vena portæ, and hepatic artery divide into branches which enter the portal canals. Of these canals the ultimate ramifications, however small, contain each a branch of each of these vessels. In the lobules the ducts form plexuses, as do the veins and arteries; the latter are exceedingly minute and few in number: they are the nutrient vessels of the lobules, and probably terminate in the plexuses formed by the portal vein.

Mr. Kiernan next dwells on the vaginal portion of Glisson's capsule and its vessels. After a minute description he observes that, it is evident that Glisson's capsule is a cellulo-vascular membrane, composed of the vaginal branches of the duct, vein and artery, ramifying in a layer of cellular tissue. Its existence around the three vessels in the larger canals, in which the vaginal plexus is most complicated; its existence on that side only of the smaller canals occupied by the duct and artery, and its almost total absence on the opposite side, sufficiently prove that by its means the three vessels are brought into apposition with all the interlobular spaces on the surfaces of the canals.

The following extract may be added.

"The coats of the ducts are highly vascular; the rugæ on their internal surface, and those on the internal surface of the gall-bladder, are formed by the ramifications of the larger blood-vessels, arteries as well as veins, covered by the mucous membrane. This membrane is studded with vascular papillæ, which become remarkably developed in the diseased ducts so frequently found in sheep and oxen. The smaller ducts are furnished with papillæ only, and to the rupture of the delicate vessels forming these papillæ is to be attributed the facility with which Sœmmering and other anatomists injected the ducts from the arteries and veins, and not to any direct communication between the vessels and the ducts. This point has been particularly insisted upon by Muller, who, in speaking of Walter's experiments, says, 'Itaque si in Walteri experimentis massa interdum ex vasis sanguiferis in ductum hepaticum transiit, certe non per minimos ductus biliferos transiit, sed in truncos ipsos ex vasculis sanguiferis erupit.' Mappes imagines that the hepatic artery is principally destined to supply the coats of the portal vein with blood: this is so far from being the case, that when the arteries are well injected, the larger ducts, from the extreme vascularity of their coats, may be mistaken for the injected arteries, whilst, in the coats of the vein, no vessels will be detected without the aid of the magnifying glass.* The coats of the ducts may be as highly injected from the portal vein as from the hepatic artery; but they cannot be injected from the hepatic veins, if the injection is confined to these vessels, and does not return by the

* "Mappes probably saw the vaginal arteries, which ramify on the parietes of the canal previously to entering the interlobular spaces, through the transparent coats of the veins, and concluded that they were ramifying in the coats of these vessels; or in making sections, this anatomist may have removed a portion of the parietes of a canal, leaving the arteries on the vein."

portal vein. Mappes could not inject the ducts from the portal or hepatic vein; he is nevertheless of opinion, 'que la bile est tirée plutôt du sang déjà parvenu dans cette veine (la veine hépatique) que de celui qui se trouve encore dans les dernières extrémités de la veine porte.' The ducts cannot be injected in a direct manner from the hepatic vein, no branches of this vein ramifying in their coats; fluid may indeed be made to pass from this vein into the ducts, but only through the medium of those branches of the portal vein which ramify in the coats of the ducts.* The ducts are injected from the portal vein and from the hepatic artery in the same manner as the fœtal intestine is frequently filled with injection from the umbilical vein or aorta, viz. by the rupture of the minute vessels of the mucous membrane. Hence it is evident that the ducts, so far as they have been yet traced, are abundantly supplied with arterial blood; that this blood returns into the branches of the portal, and not into those of the hepatic veins; and that the hepatic portal vein has branches of origin in the coats of the excreting ducts from the terminations of the hepatic artery as the abdominal portal vein arises in the coats of the intestines, in the spleen and pancreas, from the arteries of these organs." 727.

In speaking of the *inter-lobular portion of Glisson's capsule and of its vessels*, Mr. Kiernan observes that all the branches of the portal vein communicate with each other through the medium of the interlobular branches. This statement is opposed to the assertions of Bichat and Mappes.

### Of the Hepatic Veins and Hepatic Venous Canals.

The hepatic veins, says our author, are contained in canals, which may be called the hepatic venous canals; they commence in the interior of the liver, and terminate at the fissure of the inferior cava. Those containing the hepatic trunks are formed by the capsular surfaces of a limited number of lobules; those containing the sublobular-hepatic veins, are formed by the basis of all the lobules.

Mr. Kiernan makes a remark on Glisson's capsule to which we may allude. He maintains that its structure and uses are fully explained, it being evident that the loose connexion of the ducts, portal veins, and hepatic arteries to the substance of the liver arises from the circumstance of the three vessels ramifying in the same canals; and that the adhesion of the hepatic veins to the substance depends on one vessel only being contained in each hepatic venous canal.

Omitting much minute description we may pause at the following contrast of the portal and hepatic veins.

"By contrasting the hepatic veins with the portal vein, we find that no two intralobular branches of the former anastomose with each other; that the interlobular branches of the latter form one continuous plexus throughout the whole liver; that the sublobular veins anastomose directly, and not through the

* "By examining the surface of the liver after injecting the hepatic veins, we may ascertain in which parts the coats of the ducts are injected from these vessels, and in which they are not. If on one portion of the surface we see the interlobular portal veins injected from the hepatic veins, a few injected vessels will be found in the coats of the ducts of this part. In other parts of the liver, where the injection is confined to the centres of the lobules, and consequently to the hepatic veins, no injection will be found in the coats of the ducts, although the injected hepatic veins will be seen through them."

medium of the intralobular branches; that the portal veins have no direct communication with each other, but anastomose by means of their interlobular branches; that the hepatic veins, like the other veins of the body, proceed in a direct course to their termination in the cava; that the portal vein, accompanied by an artery, resembles an artery in its ramifications; that the larger hepatic veins, having longitudinal fibres in their coats, differ in structure from the portal vein; and that the blood contained in the liver after death is almost invariably found in the hepatic veins, the portal vein being usually empty." 737.

### OF THE STRUCTURE OF THE LOBULES.

After noticing once more the opinion of Ruysch, Malpighi, and others, Mr. Kiernan affirms that to Muller is due the important discovery, that a gland is a duct, with bloodvessels ramifying on its parietes.

The portal vein enters the liver in all vertebrated animals, in all of which the lobules are arranged around the hepatic veins. Each lobule is composed of a plexus of biliary ducts, of a venous plexus formed by branches of the portal vein, of a branch of an hepatic vein, and of minute arteries. Nerves and absorbents must be presumed to enter them.

The hepatic ducts, commonly so called, and their vaginal and interlobular branches constitute the excreting portion of the biliary apparatus; they are also organs of mucous secretion, being furnished with mucous follicles: the secreting portion of the liver is also composed of ducts, which form a plexus in each lobule. These plexuses may be called the lobular biliary, or secreting biliary plexuses.

"Examined with the microscope, the injected interlobular ducts are seen dividing into branches, which, entering the lobules, divide and subdivide into minute ducts; these ducts anastomose with each other, forming a reticulated plexus. If an uninjected lobule be examined and contrasted with an injected lobule, it will be found that the acini of Malpighi in the former are identical with the injected lobular biliary plexus in the latter, and the bloodvessels in both will be easily distinguished from the ducts. The ducts forming the plexuses, when examined with the microscope, present very much the appearance of cells; and this appearance, which has been well delineated by Mascagni, probably induced this anatomist to consider the liver as an assemblage of minute cavities, giving origin to the ducts. The form of the lobules bears no relation to the arrangement of the ducts, the form of each lobule being always correspondent to the branches of the intralobular hepatic vein occupying the centre of the lobule. The coats of the lobular ducts, on which the blood-vessels next to be described ramify, constitute the proper secreting substance of the liver, as the coats of the cortical ducts of the kidney, and those of the tubuli seminiferi, constitute the secreting substance of their respective organs." 742.

In describing the *lobular venous plexuses*, Mr. Kiernan mentions in a more distinct manner than before the communication between the portal and hepatic veins. The interlobular brances of the portal vein, surrounding the lobules on every side except at their bases, divide into branches which, entering these bodies, form in each of them a plexus, the branches of which terminate in the intralobular hepatic veins situated in the centre of the lobule. This plexus interposes between the interlobular portal veins and the intralobular hepatic vein, constitutes the venous part of the lobule, and may be called the lobular venous plexus. The venous plexus of one lobule communicates with the plexuses of the surrounding lobules by means of the

intervening interlobular branches of the vena portæ, this vein thus forming one continuous plexus through the whole liver. The converging branches of each plexus unite at the centre of each lobule, and form an intralobular hepatic vein, this vein having no communication with the corresponding veins of the contiguous lobules, except through the medium of the intervening plexus and portal veins. No branches of the hepatic veins are found in any other part of the liver; occupying the centre alone of each lobule, their only office is to convey the blood from the lobular venous plexuses, and not from the arteries.

"The venous plexus ramifies on the biliary plexus; the blood circulating through it is composed of the portal blood, and certainly of that portion of the arterial blood which, having nourished the excreting ducts and supplied them with mucus, and having circulated through the vasa vasorum of all the vessels, becomes venous and is received into the branches of the portal vein, by which, with the portal blood, it is conveyed to the plexus; and from this mixed blood the bile is secreted." 746.

After describing some experiments on the injection of the lobular arteries, Mr. Kiernan infers from their result, that the secreting portion of the liver, like the excreting portion of the kidney, is supplied with arterial blood for nutrition only. As all the branches of the artery, the termination of which can be ascertained, end in branches of the portal vein, he thinks it probable that the lobular arteries terminate in the lobular venous plexuses formed by that vein, and not in the intralobular branches of the hepatic veins, which cannot be injected from the artery, the blood of these arteries, after having nourished the lobules, becoming venous, and thus contributing to the secretion of the bile. In short, Mr. Kiernan asserts that he has shewn, that no branches of the hepatic artery terminate in the hepatic veins, the latter vessels being injected from the former only through the medium of the lobular venous plexuses of the portal vein.

### Of the Red and Yellow Substances of the Liver.

These, which have been described as separate and distinct by Ferrein, Mr. Kiernan affirms to be one and the same; for the structures of the lobules is similar, and that of each is homogeneous. Neither is one part more vascular than another.

We extract an anatomical account of the modes in which congestion of the liver occurs.

"Sanguineous congestion of the liver is either general or partial. In general congestion the whole liver is of a red colour, but the central portions of the lobules are usually of a deeper hue than the marginal portions. Partial congestion is of two kinds, hepatic-venous and portal-venous congestion. Of the first kind there are two stages. In the first and most common stage, the hepatic veins, their intralobular branches and the central portions of the plexuses are congested. The congested substance is in small isolated patches of a red colour, and occupying the centres of the lobules, it is medullary; the non-congested substance is of a yellowish white, yellow or greenish colour, according to the quantity and quality of the bile it contains: it is continuous throughout the liver, and, forming the marginal portions of the lobules, is cortical. This is passive congestion of the liver; it is the usual and natural state of the organ after death, and probably arises from its double venous circulation. In the se-

cond stage, the congestion extends through the plexuses to those branches of the portal vein situated in the interlobular fissures, but not to those in the spaces, which being larger than, and giving origin to, those in the fissures, are the last to be congested; when these vessels contain blood, the congestion is general, and the whole liver is red. In this second stage, the non-congested substance appears in isolated circular and ramous patches, in the centres of which the spaces and fissures are seen. This is the active congestion of the liver; it very commonly attends disease of the heart, and acute disease of the lungs or pleuræ: the liver is larger than usual, in consequence of the quantity of blood it contains, and is frequently at the same time in a state of biliary congestion, which probably arises from the sanguineous congestion. Although in the first stage, the central portions of the plexuses, and in the second, the greater portion of each plexus, and those branches of the portal vein occupying the fissures, are congested, and although the plexuses are formed by the portal vein; yet as this form of congestion commences in the hepatic veins, and extends towards the portal vein, and as it is necessary to distinguish this form from that commencing in the portal vein, the term of hepatic-venous congestion will not probably be deemed inapplicable to it. Portal-venous congestion is of very rare occurrence; I have seen it in children only. In this form the congested substance never assumes the deep red colour which characterizes hepatic-venous congestion; the interlobular fissures and spaces, and the marginal portions of the lobules, are of a deeper colour than usual; the congested substance is continuous and cortical, the non-congested substance being medullary, and occupying the centres of the globules. The second stage of hepatic-venous congestion, in which the congested substance appears, but is not cortical, may be easily confounded with portal venous congestion." 754.

Mr. Kiernan, having shewn that the liver is not composed of two distinct substances, deems it fair to conclude that it executes only one function—the secretion of bile.

With a summary expression of the facts spread through the preceeding pages, we fear we must terminate this lengthened notice.

"It has been shewn that all the vasa vasorum of the liver are branches of the hepatic artery and portal vein; that branches of the portal vein arise in the coats of the hepatic veins themselves; and that the veins of the coats of the vessels constitute the hepatic origin of the portal vein. The arterial blood having circulated through the coats of the vessels becomes venous, and is conveyed by the veins arising in the coats of the vessels into those branches of the portal vein which correspond to the vessels in the coats of which the veins arise; thus, from the coats of the vaginal ducts, veins and arteries, they convey the blood into the vaginal veins; and from the coats of the interlobular ducts, veins and arteries, into the interlobular veins. From the coats of the hepatic veins and inferior cava, the blood is conveyed into the interlobular portal veins. In the vaginal and interlobular veins, the blood conveyed from the coats of the vessels becmes mingled with the proper portal blood. This mixed blood is conveyed by the interlobular veins into the lobular venous plexuses, in which the lobular arteries probably terminate, after having nourished the secreting ducts. From the mixed blood circulating through the plexuses, the bile is secreted by the lobular or secreting bilary plexuses.

The blood which enters the liver by the hepatic artery fulfils three functions; it nourishes the liver; it supplies the excreting ducts with mucus; and, having performed these purposes, it becomes venous, enters the branches of the portal vein, and contributes to the secretion of the bile. The portal vein fulfils two functions; it conveys the blood from the artery, and the mixed blood to the coats of the excreting ducts. It has been called the *vena arteriosa*, because it ramifies like an artery, and conveys blood for secretion; but it is an arterial vein in an-

other sense, being a vein to the hepatic artery, and an artery to the hepatic vein. The hepatic veins convey the blood from the lobular venous plexuses into the cava inferior." 756.

Any comment on this Essay would be useless. The laborious investigations on which it is erected display the dilligence and zeal of Mr. Kiernan. If these investigations are successful, and the inferences drawn from them correct, the author will justly have earned the honour of settling great and disputed points in anatomy and physiology. We hope, and indeed we trust, that the talent and the perseverance he displays in the intricate field of anatomical discovery will not be permitted to pass unrewarded. Some means *might* be found of giving an aim, as well as an impulse, to his talents and his taste. We may probably be excused for expressing a desire that Mr. Kiernan may be withdrawn from the drudgery of general practice, to devote himself more exclusively to the prosecution of inquiries connected with the higher provinces of science.

## III.

### An Examination into the Causes of the Declining Reputation of the Medical Faculty of the University of Edinburgh, &c. &c.

This pamphlet has created some sensation in the medical world, especially amongst those members of the profession who have received their education in the northern metropolis, or graduated there. The number of these is not by any means small; and when we look around upon those practising, with so much credit to themselves, in Modern Babylon alone, we confess that it gives us much pain to hear the above fact asserted, and still more to learn the principal causes as stated in this Examination. "The days of the Blacks, the Cullens, Gregories, and Monros, are no more, and the fame of the Northern Athens has departed with them." We who have seen the theatres of some of them daily filled to their highest benches with students listening, with unceasing interest, to their Professors' prelections, the termination to which was, their noisy, though heart-cheering applause, are tempted to exclaim, on re-entering the collegiate portals—"The friends of my youth where are they? and the echo answers—where are they?"

That the Edinburgh University has declined in reputation owing to some cause or other within the last few years is the general opinion, and the author of the above pamphlet has entered upon the task of proving to the profession and to the public, the direct and latent causes of this falling off. Three principal ones are stated, as follows:—

1st. The election of persons, not properly qualified for the office, to the different professorships.

2dly. The students being overwhelmed by compulsory attendance on unnecessary lectures.

3dly. The character of the examinations in the University for degrees being bad, if not disgraceful.

We apprehend that many other causes exist to account for the gradual diminution of the University students, besides those brought forward by the author, and we cannot altogether coincide with him even in adopting these as facts, and therefore must dissent from many of his deductions.

That the elections of some of the professors to chairs in the University of Edinburgh have been owing to political interests, family connexions, and other unfair means, we are not at all disposed to deny. The qualifications of the candidates, in these cases, have weighed as dust in the balance against their more powerful opponents, self-interest and favouritism. An exposition of the curious machinery set in motion at these epochs, and of the *oil* used to keep its wheels in revolution, would be amusing, though at the same time it would give us very unfavourable ideas of some of the principle worthies connected with the affair. The professional chair of physic, for example, so brilliant in the days of Cullen and Gregory, has, since the death of the latter revered teacher, been a dead letter; not perhaps owing to any lack of knowledge in its present Professor, but from various impediments which might have prevented even a profound philosopher from gaining any increased reputation as a lecturer. Nor can the Glasgow college boast of being more fortunate in this respect, owing to the secret influence exerted, 400 miles from the spot, to secure the chair for a favored scion of an English University! In selecting an individual to fill this, (generally considered as the principal Professorship of a medical college) great care should, no doubt, have been devoted to the choice of one who, by his extensive knowledge and practice, should have been known to all—whose aptitude for investigation in this important branch of study—and whose unwearied diligence, in preparing himself for the diffusion of its result, to his audience, might fairly compete with all rivals in maintaining the celebrity of the chair. Let us hope, however, that a recent appointment in the Glasgow University, gives signs of better times henceforward; and that the system of nepotism and court influence is on the wane. A few more such professors will make it a formidable rival to Edinburgh.

In following the author, we find him objecting to several of the appointments to the University chairs, either owing to the non-ability of the individuals filling them, or on account of the absence of necessity for the endowment of such chairs at all. *Pathology*, for instance, is considered as unworthy of such a distinction, as it is taught by all anatomical lecturers. Every one will, however, recollect how very scantily it is treated on, in these courses, and indeed how few opportunities, comparatively, arise for good demonstrations in this department of the lectures. Much time is required for any thing like a fair study of the different morbid structures, and we may instance the late work which has appeared on the structure of the liver only, by Mr. Kiernan, which is the result of two years' intense application. The University of London has lately thought it of sufficient importance to require a separate professorship, that able pathologist, Mr. Carswell, now holding the appointment. When, indeed, we consider the immense practical importance very properly attached to an intimate knowledge of the morbid condition and various appearances of diseased tissues, we cannot justly blame a medical corporation for giving to their students every possible facility of making themselves thoroughly acquainted with the subject.

The appointment to the chair of clinical surgery is strongly animadverted

on by the author, both on account of the nature of the transfer by sale, and of the youth and inexperience of the Professor. As relates to the former, we must decidedly attach much blame to the governing body, for permitting such a transaction to occur; the old Professor who has (according to the author) received a large income from this appointment for many years, could in no way be entitled to any remuneration for quitting a chair of which he was no longer able to perform the duties. That the change, however, has proved, in an immeasurable degree, beneficial to the students, we suspect will be universally acknowledged by them, unless these lectures were latterly conducted in a far different manner to what they were some 13 or 14 years since. The founder and assiduous superintendant of an excellent clinical hospital, the reports from which have, at various times, afforded much useful information to the profession; the experienced anatomist who has been engaged in the arduous occupation of lecturing for the last 12 years, we cannot conceive to be ill-qualified, either from youth or inexperience, for an office requiring much activity both of mind and body in selecting and following up the different interesting cases which may occur in the wards of the hospital. The compulsory attendance on these lectures seems, however, to our author, a great hardship on graduates of medicine, who should not be required to possess a *thorough* knowledge of this branch of instruction!! Before quitting this subject, we put it to the author, in reference to the appointment, whether it would have been either fair or proper to have conjoined the two professorships of surgery to the College of Surgeons, and that of clinical surgery to the University, in one and the same person?

Again, we are not at all surprised at the University of Edinburgh having found it requisite to raise the standard of qualifications for their degree; and, in so doing, we consider that it has acted wisely and prudently, in order to keep pace with the advance of medical science within the last few years. Let us look back, for instance, at the manner in which anatomy was taught 15 or 16 years since, and then consider, how much more scientific a method the French and German anatomists have forced us to adopt, as a more free intercourse with them has enabled us to profit by a closer intimacy with their works. Scotch degrees, we are aware, have been, in some mouths, a bye-word, owing to the lax discipline and scanty qualifications required by St. Andrew's and Aberdeen; and should Edinburgh therefore be arraigned for endeavouring to keep her good name, and avoiding all such reproach, and for causing her alumni to be respected by the amount and quality of their acquirements? The Apothecaries' Hall in London has been lauded by all, for the self-same advance, in contrast with the Royal College of Physicians. We must disagree also with the author, in the opinions he expresses as to the source of information being an entirely unnecessary consideration, on a candidate presenting himself for a degree in any University. We confess that we dislike the plan of a Senatus Academicus sitting ready to examine all persons who may arrive, per mail or steam, for that purpose, and departing next day with the summi honores in their pockets. *Some part* of the probationary studies should be passed within her walls, in order to prevent her becoming a mere shop for the sale of degrees. That the teachers should not themselves be examinators, we are prepared fully to admit. This evil has been long felt in our College of Surgeons, and we sincerely trust that the legislature will, amongst other abuses, correct this

glaring one. Examining masters for the purpose, similar to the Oxford and Cambridge officers, would be more accordant with propriety and justice.

The lengthened attendance on hospital practice is a point we agree perfectly with the faculty in thinking an improvement; and on this question, therefore, we are at complete issue with the author. If any one branch of our preliminary education, as good practical physicians, is of supreme importance, it is the observation and constant attendance at the bedside of patients in an hospital; and the clinical wards of the Edinburgh Infirmary are, from the excellent method of their arrangement and routine practice, an example to the London hospitals, and certainly beneficial, in an exemplary degree, to those students who follow diligently the opportunities afforded them. *Medical jurisprudence* is another branch of medical study, which the author objects to, as requiring a separate chair. The manner in which it is taught by the professors of chemistry, midwifery, and materia medica, although sufficient in the eyes of the author, we hold to be utterly incompetent and unsatisfactory for the education of a physician. Let us remember in what an unenviable position some of our medical brethren have been placed in courts of justice, continually, from a want of knowledge on this subject. It is unfortunate, likewise, for the author's position, that it is now *required* at the Apothecaries' Hall, and is taught even in the London hospitals.

The quotation of Oxford, on any authority on medical legislation, we conceive to be peculiarly unfortunate. It is true that that university requires no imperative curriculum of study, but that the candidate is required to devote three years to the study of medicine elsewhere; and now let us ask to which university do they generally bend their steps; and where do they gain the knowledge which is to fit them for their after examinations? We apprehend that no worse authority than Oxford could have been adduced; for it is notorious that the graduates, glorying in the degree of that university or of Cambridge, *do* obtain *all* the information, (which is worth anything to the public,) in their capacity of physician, ELSEWHERE!!

The system of examination in the Edinburgh University the author reprehends as disgraceful. That many blockheads have there obtained degrees we will ourselves at once confess; but we will, in reply, ask the author to point out any learned body in this or in other kingdoms, and say if he cannot instance some one or more individuals who form component parts of those societies, and who are not most fully entitled to the same appellation? Where examinations are strict and proper, still chance may direct the questions in them to those identical topics, of which *alone* perhaps the candidate has a knowledge. We have ourselves known instances of men who went direct from the book to this dreadful tribunal, and to their inexpressible gratification, the first questions were on the subjects of their last read page, the answers being so remarkably satisfactory to the examiners that the after parts of their examination were lightly passed over, owing to the thorough knowledge evinced on all the subjects for the first half hour. Instances of this are of frequent occurrence at our universities, and cannot easily be avoided. As far as we are able to decide, from experience, we should say that the examinations for the degree of Doctor Medecinæ in the University of Edinburgh, are, in comparison with three others of which we have personal knowledge, the most difficult, and though of course susceptible of

some improvement still, are decidedly not inferior to those of any medical college in Great Britain. A very fair quota of aspirants are usually sent back to undergo further examination, proving that it is not the love of filthy lucre alone which actuates the minds of the professors.*

In a former part of this critique we mentioned that the author had not taken into consideration some causes which might strongly affect the interests of the Edinburgh University, and account, in part, for the decrease of its pupils from the sister kingdoms. He has, however, we find, in again looking over the "Examination," slightly touched upon these topics; but attributes little influence to them. He must recollect, however, that the schools, of London have, of late, become both more numerous and attractive than formerly. Hospitals which, a few years since, had no schools attached to them, have considered it their interest to found them. The University of London and King's College have operated against Edinburgh still more; and should a faculty in London be invested with the power of conferring degrees, it will altogether prevent the egress of candidates for a degree from England. Those students too, who, having finished their probationary studies in London, formerly visited Edinburgh to complete their education, now prefer Paris, on many accounts, for that purpose.

One word more as to the examinations in Edinburgh, which the author finds fault with, as rendering concealment of the rejection of any candidate impossible. *So much the better.* If they were conducted altogether in public, it would have the greatest possible benefit in putting a stop to that negligence and dissipation of the students so justly remarked on by the author. "They order this matter better in France." As to the power of the Edinburgh University in granting degrees, we apprehend that the author must be in fault in denying it—if he be correct, not a day should be lost in applying to Parliament on the subject.

In conclusion, we think that the author, though taking different views on many subjects from ourselves, has handled them fairly, and has adduced many striking facts in his pamphlet, sufficient to put the new magistracy on their guard in future elections, if they possess the wish of upholding the fair fame of their colleges, especially when St. Andrew's and Aberdeen are at last endeavouring to rival them by awaking from the sluggish apathy which has so long been both their bane and disgrace. The author appears to have the interest of the university at heart, as well as that of the private lecturers, (we presume of course that he is of the latter class himself,) and we should ourselves recommend to the faculty of the former institution, to use no other means of suppressing this very useful class in the profession than by shewing (from the excellence of their own lectures) that they are unnecessary.

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* We do not, however, consider the mode of examination in Edinburgh, or in any of our colleges, as by any means the most proper tests of medical acquirements. Nothing but a public examination, with the subjects before them, can ever prevent ignorance from escaping, by means of cramming, and foolish or improper questions being put by superannuated, prejudiced, or pedantic examiners.—*Ed.*

## IV.

A TREATISE ON INFLAMMATIONS, &c. &c. BEING AN EXTENSION OF A DISSERTATION ON INFLAMMATION OF THE MEMBRANES, TO WHICH THE JACKSONIAN PRIZE FOR THE YEAR 1827, WAS AWARDED BY THE ROYAL COLLEGE OF SURGEONS IN LONDON. By *George Rogerson*, Surgeon, of Liverpool. 8vo. pp. 459. Vol. I. London, 1832.

IT requires no small degree of ardour and of courage to read or to write, at this time of day, a systematic treatise upon inflammation. In the first place, it is a subject which has occupied the minds and pens of many eminent men, with only an indifferent degree of success; and, in the next, the taste of the times, is by no means favourable to general dissertations. Nosologies and systems are rather things that were, than growths of the present age, and men evince a disposition to study facts in preference to speculative reasonings. The writings which now attract most attention are those which record facts, or are little more than inductions from them, works, in short, of a clinical character. We need not mention particular examples, as they cannot fail to present themselves to the recollection of all who are conversant with recent medical literature.

We do not affirm that this taste should be exclusively indulged in, although its effects are, on the whole, most salutary. It is true that men of great talent or ingenuity, are discouraged from exercising those qualities on speculative points, and we are not likely to have other Cullens, Boerhaaves, or Browns. The day of medical, like that of parliamentary *leaders* is past, and although the existing order of things is less calculated for the vivid displays of genius, it is better adapted for business—though it may strip talent of some of its glitter, it will probably tend to render it more steady and more permanently useful.

Works, the object of which is the enunciation and elucidation of general principles, should not be rashly attempted by ordinary men. It requires a masterly and analytic mind to succeed in such an enterprise. General principles in medial science, should be as purely inductive as possible, and when we consider the immense number of facts that have been accumulated and present themselves to daily notice, the many modifying circumstances that affect them, and the varieties, nay, contradictions, that they display, we feel no surprise that hitherto the majority of writers have failed in their ambitious endeavours at systematic analysis and combination. We fear that the time for these comprehensive essays is not yet come, that individual facts must be farther studied, limited inductions more clearly established, before there will be a sound and at the same time ample foundation for their support. The laws of inflammation, for instance, are, when properly considered, merely conventional expressions of the phenomena of inflammation, mere modes of stating in abbreviated forms the frequency of such and such occurrences. A correct exposition of the laws, presupposes therefore an accurate knowledge of the facts. But are all the facts yet known to us? It is only within these last few years that we have received a true account of the

character and progress of phlebitis—of the secondary inflammations and deposites—of the differences displayed by inflammation in the different tissues of the joints.* It is evident that a man living at the period when Hunter did, a period antecedent to that in which these facts were known, could not possibly construct an accurate treatise on inflammation, when such a treatise should comprise circumstances of which he was absolutely ignorant. We are thus thrown back on observation, we are taught to generalize cautiously and slowly, and in this way the materials are laboriously accumulating for wider and more universal inductions.

We have been induced to make these few remarks by a hurried glance at the volume before us. We fear our author has been unwise in embarking on so bold a venture, we fear he has in some measure over-estimated his strength, and exposed himself to criticism instead of commanding conviction. We are bound to shew that we have not judged harshly, nor condemned unjustly. We will take at hazard the fourth section of the volume, the subject of which is the classification of inflammation. It opens in the following manner.

"All parts of the body are subject to attacks of inflammation, and the disorder consists of several well-marked varieties of species, affecting membranes and organs in a different manner. All maladies, of any degree of seriousness, appertain to one or other of these species of inflammation; and the diseases of all the structures of the body, of every kind, are caused by them; but the great multiplicity and variety of symptoms observed in one species of inflammation are owing solely to the difference of the anatomy and physiology of the respective tissues and organs. Pathology, though comprising the whole catalogue of the suffering ills of living organization, is necsesarily confined to general maladies, few in number: but its application to the different structures of the body will cause it to assume forms, or give signs, as numerous and variable as the structures composing that living body differ in organization. The present complicated nosologies are, therefore, not only perfectly useless, but injurious, since the cause of the pathlogical states of structure is clearly attributable to one variety or other of inflammation; and what these varieties are, we will now proceed to examine." 77.

The critic will discover in this brief passage several assumptions, and much obscurity. It is surely an assumption that "all maladies of any degree of seriousness appertain to one or other of the species of inflammation, and that the diseases of all the structures of the body, of every kind, are caused by them." It has never been proved that fungus hæmatodes is a consequence of inflammation—nor that schirrhus is such a consequence—nor epilepsy—nor convulsions—nor tetanus—nor hydrophobia—nor passive dilatation of the heart, nor many other serious maladies to which we might readily refer. It is true that it is supposed by some that inflammation of some peculiar kind *may* give rise to some of these affections, for instance, to the morbid growths; but this is a supposition, or at best a moot point, and certainly not sufficiently established to admit of a confident enunciation. How the little modicum of reasoning with which we are presented, or how, indeed, in the present state of science any quantum of reasoning whatever

* On some of these subjects modern investigation has still much to do. Phlebitis and the purulent deposites are neither well described nor understood.—*Ed.*

can warrant a philosophic writer in asserting, that the cause of all morbid alterations of structure is attributable to some variety of inflammation, we really cannot conceive. It is a palpable assumption.

Mr. Rogerson criticizes, and we think successfully, Mr. Hunter's divisions of inflammation into the adhesive, suppurative, &c. Adhesion, suppuration, are effects of inflammation, not varieties of the process itself, and we sometimes observe at the same time, and in the same inflammation, adhesions, suppuration, sloughing. Mr. Rogerson also notices the opinion which has been advanced, that the varieties of inflammation are owing to the difference of texture. To this theory Mr. Hunter well objected, that inflammation of one character will at the same instant attack many tissues; thus, after an amputation of a limb, inflammation will occur, and end in adhesion or in suppuration, this state being observed in the various tissues of skin, cellular membrane, muscle, tendon, bone. Inflammation is greatly modified by tissue, and certain textures display a preference for peculiar forms and terminations of inflammation; but its varieties cannot be considered as merely the result of the influence of tissue.

After freely commenting on other divisions of inflammation, Mr. Rogerson proposes his own, which is this. He arranges the different species of inflammation into four classes, "in which they are considered according to the general state of the affected part during its inflammatory stage." Those classes are as follows:—

"First. Inflammations which are limited to a certain extent on structure.

Second. Inflammations whose depositions are to spread.

Third. Inflammations which, during the inflammatory stage, disorganize structure, converting it into a nature *sui generis*.

Fourth. Inflammations which arise from some morbific or poisonous matter on structure." 89.

In short, the varieties of inflammation may be termed the limited or limiting—the spreading—the disorganizing—and the poisonous.

"Each species has a partiality for some particular membrane, or parts of it, in preference to any other; thus common inflammation is seated more particularly in the cellular membrane; erysipelas in the skin; carcinoma, and scrofula, in the glandular parts of a membrane; and poisons affect the structures, as if they were allotted to them." 89.

Objections to this scheme very readily present themselves. The inflammation which follows the reception of a morbid poison may display the first or the second character—may be strictly limited, or rapidly diffused. We need not reiterate the reasons which induce us to reject inflammation as the origin of many morbid changes of structure.

Perhaps the varieties of inflammation may be analytically reduced to two —the limited and the diffuse. The former evinces a marked disposition to the effusion of coagulated lymph at its periphery, and to limitation by this salutary cordon; the latter runs along a tissue, producing disorganization in one case, and comparatively little alteration in another. Striking instances of this kind of inflammation are presented in erysipelas, and diffuse inflammation of the subcutaneous or intermuscular cellular membrane.

We might possibly be tempted to add to these two species a third—the inflammation dependent on specific poisons, as lues, small-pox, vaccinia, inoculation from dissection-wound, and so on. But, even here, a close examination serves rather to detect distinctions in the phenomena accompa-

nying the inflammation, than in any essential features of the latter. But we will not pursue this seductive subject.

When two or more membranes are inflamed, Mr. Rogerson terms the inflammation compound. We notice this for a reason that will shortly be apparent. Mr. Rogerson proceeds to mention, that the cellular structure and the skin are frequently affected at the same time, and that this affection has been improperly denominated phlegmonous erysipelas—erysipelas phlegmonodes, &c. We will let Mr. R. declare his own opinions.

"The compound erysipelas most frequently takes place between some membrane and its adjacent cellular texture. It is often observed that the cutaneous and subcellular membrane are attacked, when it has erroneously and improperly been named 'erysipelas phlegmonoides,' 'phlegmonous erysipelas," &c. But this name is erroneously and improperly given, because it serves to convey a wrong idea of the nature of the disease. The title being compounded of phlegmon and erysipelas, certainly expresses that this disorder is a compound of the two varieties of inflammation, which is not the case. It is one variety of inflammation, but seated in two separate kinds of membranes, which must create some variations in the symptoms from those of the simple inflammation of either of them, as well as in the course of the disorder. The term, then, is highly objectionable; for, from the construction which its derivatives admit, it would imply that two different and distinct species of inflammation co-existed in the same part at the same time, which Mr. Hunter has proved to be impossible; and it is to the establishment of this golden rule, that medicine is indebted for its great pathological and nosological simplicity. It is owing to a negligence of this rule, too, that the term was applied, from a fancied resemblance to two maladies; for men are naturally prone, in their descriptions of new facts and discoveries, to form similies from, or draw comparisons between, objects already known. This nosology seems to be tinctured with the opinions propagated by Dr. C. Smyth, for here phlegmon might be applied to the inflammatory malady of the cellular membrane, and erysipelas to that of the skin. This combined term should, however, be discontinued; and surely it would be much better to substitute a name expressive of the real nature of the disorder, as the compound erysipelas of the cutaneous and cellular membranes. By so doing, we learn that the inflammation is erysipelas, and that it is existing in two neighbouring membranes at the same times." 98.

We agree with our author in deeming the term "phlegmonous erysipelas" a bad one. But we do not altogether approve of his substitute. If many of these cases are observed with care, they will not appear to be erysipelas at all. The disease very frequently commences as diffuse inflammation of the subcutaneous cellular membrane, and the blush upon the skin is consecutive in regard to time, and inferior in extent. In the limb of a person who has received a compound fracture, or some lacerated wound, there is frequently an opportunity of witnessing distinctly the commencement of the disease in the cellular texture—the subsequent invasion of the skin—the absence of the defined erysipelatous border to the redness of the latter—the extent of effusion, of suppuration, and of sloughing in the cellular tissue, prior to ulceration or to sloughing of the skin. We have never yet seen a *very* good account of this affection. Mr. Lawrence's is certainly imperfect, and in some degree erroneous.

There is a subject to which we could have willingly alluded, one of the greatest practical importance, and of no mean physiological interest. It is the consideration of the fevers of inflammation.

Our space will not permit us to enter on this interresting subject. Adequate justice could not be done to it in a hurried notice of a few pages. In our next we shall probably return to it, and endeavour to lay before our readers some curious and important facts.

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## II.—(BIS.)

AN ESSAY ON INFLAMMATION; BEING AN INQUIRY INTO THE CAUSES, PHENOMENA, TREATMENT, AND TERMINATIONS OF THIS CONDITION, WITH A VIEW TO THE ELUCIDATION OF THE PROXIMATE CAUSE, By *Philip Lovell Phillips*, M.D. Oxon. Octavo, pp. 153. London, 1833.

WE know Dr. Phillips to be able, ardent, and industrious. He has studied in a good school, St. George's, and what he has studied he has made his own. Yet we cannot agree with him in the theory which it is the object of his work to establish, on which he has expended infinite pains, and to which he has devoted considerable time.

That theory is the doctrine of debility of the capillaries as the proximate cause of inflammation. It comes recommended by high authority—founded on plausible experiments—strengthened by seductive and logical reasoning—and wearing that aspect of exactness and of demonstration that carries unwilling scepticism by assault.

Yet experience and observation, those sullen scorners of the blandishments of theory, suggest objections to the one before us—objections that have never been triumphantly refuted—objections that have been answered by appeals to experiments rather than to Nature.

There is much in experiments to captivate; history tells us there is even more to mislead. There is scarcely a physiological absurdity that has not been supported by an army of experiments. They are to physiological science what cases have been to medicine—teeming with fallacy and falsehood. By experiment, Majendie determined that the fifth was the nerve of smell—by experiment, he proved that an animal is under several antagonizing impulses; to go forward, backward, laterally, to revolve—by experiment, he concluded that there was a fluid in the spine and in the ventricles, which, becoming cold, produces ague. In short, there is no folly, no heresy, that cannot fall back on experimental *facts*.

We do not undervalue experiments. We esteem them most highly, but we depend upon them *only* when they chime with the great phenomena of Nature. Those phenomena are themselves a grand series of experiments, conducted in her laboratory, and open to the common observation of mankind. It is true that her processes are generally secret, often unintelligible. Yet the results are obvious, and many of the links in the chain of causation may be seen and handled.

The theory of the proximate cause of inflammation which Dr. Phillips advocates makes debility of the capillaries the efficient agent. The action

of the heart and great vessels may be natural or altered, but debility of the capillaries is the circumstance that is essential. The experiments on which this hypothesis is grounded may be said to express the following conditions.

1. That, on the application of some stimulants, paleness is the first result, and redness may or may not follow.

2. That other stimulants occasion redness without preceding paleness.

3. That, in the state of inflammatory redness, the blood has sometimes flowed with diminished, sometimes with increased velocity.*

These are the main facts. We turn to the principal correlative speculations.

1. It is concluded that the action of a capillary is contraction.

2. A capillary in the condition of inflammation is dilated, and as dilatation is the converse of contraction, and contraction the measure and the consequence of action and of power, it is probably in a state of debility and atony.

This is an analytical expression of the theory of debility as the proximate cause of inflammation. Stripped of its outside ornament, it is the skeleton and frame-work of the argument. Let us see how it agrees with the natural phenomena.

In practice we find two conditions opposed to each other, yet insensibly mingling at their respective confines. These conditions are inflammation and congestion. How distinct they are in some particulars, and in most of their effects, we need not pause to explain. Yet the theory of capillary debility appears as if originally cut for congestion, and undoubtedly fits it the best. In congestion the velocity of the current of blood is confessed to be diminished—the vessels are obviously dilated—the important hypothetical conditions of inflammation are existent—yet their sum is not inflammation.

This then is one objection to the theory; it does not account for the manifest distinction between inflammation and congestion.

Inflammation is not an absolute condition, fixed in its characters, and unvarying in its features. On the one hand, it can scarcely be distinguished from congestion; the tint is dull, the circulation languid, stimulants, (which cause contraction,) remove it. On the other hand, the circumstances differ from the former; the colour of the part is of a vivid scarlet, the heat is great, the circulation hurried, stimulants aggravate the inflammatory action.

It is a second objection to the theory we are considering, that it does not explain these different kinds of inflammation.

Let us take an instance of active inflammation in an external part, and try the theory by its applicability to the several phenomena. Those phenomena are redness—increased temperature—swelling—and pain.†

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* Some of the experimenters dislike this statement of Dr. Thomson's. They contend that when the velocity was augmented, it was not orthodox and genuine inflammation.—*Ed.*

† The succeeding arguments are contained in the number of the Medico-Chirurgical Review for October, 1832. The Reviewer may be permitted to steal from himself.

1. *Redness.* An inflamed part, if formerly white, becomes more or less red, and if previously red, it is rendered redder. This arises, of course, from the greater quantity of red blood which is in it. But we must not stop here. Venous blood and arterial differ in colour, and, for precisely the same reason, blood circulating slowly is less florid than blood circulating rapidly. In phlegmonous inflammation the colour is vivid, not only because there is much arterial blood in the part, but also because that arterial blood is frequently renewed; in other words, because it is circulated with rapidity. If an incision be made into an inflamed part, all surgeons are aware that not only does more blood escape, but that it escapes with unusual force from vessels of all calibre. It may be said that this is owing to the increased propulsive power of the heart. In inflammation sympathetically affecting the vascular system this is partly true, but in slighter inflammations, where observation can detect no alteration whatever of the general circulation, such a supposition cannot be received. It is difficult to suppose that the weakened vessels, unassisted by increase of force in the heart, would not only bleed more freely, but throw out their blood with more power.

It is a third objection to the theory that it does not inform us why blood more stagnant than natural in dilated reservoirs, should display increased redness, and flow with augmented celerity and force.

2. *Heat.* It is generally supposed that this is produced by the greater afflux of blood from the interior, because it is known that the blood of the interior is of a higher temperature than that of the surface. And, setting aside the satisfactory experiments that have been made by John Hunter and by others, this view of the cause of increased heat, is corroborated by the fact, that the cheek, when suffused with a passing blush, does glow under the temporary accession of blood from the internal parts. But if there were a stasis of blood in the inflamed part, the heat would not be maintained, for the blood being placed under the same circumstances as the surface of the body would lose its temperature, as *it* does. We may infer then, that not only more blood does arrive at the part, but also that it circulates through it with more than usual rapidity. If this be denied, then we cannot explain the phenomena of increased heat by the state of the local circulation. Throbbing, perceptible and painful, is an accompaniment of heat in inflammation. This is explained by the impulse of the heart being more sensibly felt in the dilated and weakened vessels. It is certainly present when the action of the heart is not manifestly augmented, and those who have suffered from whitlow know that it is not confined to the point immediately inflamed. It usually ceases when suppuration is established; yet we think it would be difficult to prove that the vessels then cease to be weak, if they were weak before, or to be dilated, if before dilated by the action of the heart. Mr. James remarks, that if the blood be pressed out of an inflamed part, it will return with great velocity when the pressure is withdrawn. In parts reddened from cold, where there is evident congestion, the contrary is the case.

We need scarcely express in other words this fourth objection.

3. *Swelling.* The considerations which present themselves on this phenomenon, do not prove or disprove the theory of inflammation at issue.

4. *Pain.* The pain attending acute inflammation is familiar; it is active, acute, energetic. It is explained by the pressure exercised on the nervous filaments by the enlarged blood-vessels. Probably this is not the whole truth. As the nervous system is the system of relation, that which informs both the animal and the organic life of impressions from without, it seems reasonable to imagine that the external irritant which has occasioned the phenomena of inflammation displayed by the vascular system, has also contributed to excite the sensibility of the nerves. However, this is a subject too extensive, and also too subtle for us to enter on. It is evident that the nervous system is intimately linked with the vascular in inflammation. The pain attending the different varieties of inflammation varies in intensity and kind; it differs in acute pleurisy and in rheumatism, in erysipelas and in phlegmon. In certain kinds of inflammation which are called latent, pain is frequently absent. We have seen a dozen, aye, several dozen instances, in a large London Hospital, of death from latent pleuro-pneumonia, where there was little or no pain during life. In acute phlegmonous inflammation, not only is the pain pungent, but the ordinary sensibility of the part is excessively increased. Now we know that such an increase argues an augmentation of the powers of the nervous system. But such an augmentation is hardly consistent with debility in the vascular system, and what is applicable to the two systems considered each as a whole, seems fairly applicable to their parts. Thus, latent inflammations usually occur in persons exhausted by typhus, by the discharge from compound fractures, &c. and it may be imagined that it is this exhaustion, shared by the vascular and nervous systems, which renders latent inflammations unaccompanied by the ordinary nervous sensibility, and indomitable by the depletion which generally puts down vascular action. Yet with all these facts before us, we are asked to assent to the opinion that inflammation is in *all* cases essentially the same; that in every instance the smaller vessels are weakened and dilated, the circulation in them retarded.

We might advert to one of the foundations of the theory—the supposition that the action of the capillaries is contraction. We know very little of the capillary vessels—our notions of their action are founded, at the best upon presumptions, possessed of a certain degree of plausibility; and a theory which is founded on a theory, is a house upon the sands.

There are circumstances accompanying growth and reparation, which deserve to be considered in examining the nature of inflammation.

Growth we suppose to be an active process, as it is most vigorous in youth and health, most feeble in debility and disease, almost annulled in age. There is a strong analogy between growth and reparation. During the reign of one the other is most powerful. Reparation is essentially effected by inflammation. Growth is not actually inflammation, because there are wanting in it some of the phenomena, and most of the consequences attending that process. But growth, although not inflammation, is a state approaching to it. The vessels in growth become enlarged, the circulation active, the nervous system excitable. The period of growth is the period for phlegmonous inflammation, and, as we said before, for reparative inflammation in its perfection. Here there is a strong analogy between the phenomena displayed by the vascular system in growth and in inflammation. Analogy is not proof, but it is not to be discarded in discussions, and it is

ways subsidiary to proof. In growth few will pretend to say that the vessels are weakened, for they are then most active, yet in inflammation, analogically comparable to growth, we are told that they are so.

Hitherto we have considered general growth, but the phenomena of partial growth, that of tumours for instance, should not be passed unnoticed. In it the blood-vessels become dilated, tortuous, the nervous sensibility occasionally increased. If we admit, and it cannot be denied, that there is general action of the vascular system in general growth, we may well imagine that there is local action of the same system in many instances of partial growth. But it will be found that, by a wise provision, local growth has a still greater connexion with inflammation than general growth. Thus morbid growths have a great tendency to inflame, and to be affected with the consequences of inflammation. Hence nature attempts to destroy them by an extension of the very same process which has produced them.

A glance at the final cause and at the consequences of inflammation may not be irrelevant to the point at issue.

The original final cause of all inflammation is probably reparation. The good God that created the animal, stamped upon his organization a tendency to actions and a power of originating them, adapted to the repair of a certain amount of injury. But it seems paradoxical to conceive, that what in itself must imply energy and vital power, should be effected by debility of the repairing agents.

The consequences of inflammation are, effusion of the albumen and fibrin of the blood—effusion of pus—effusion of new substances, as of lithate of soda in gout, the ivory deposit in certain cases of diseased joint, the phosphate and carbonate of lime in periostitis—ulceration—granulation and cicatrization—and finally mortification. Some of these processes may argue debility in the smaller vessels, others can hardly do so. Look, for instance, at the inflammation after fracture; see the bone-earth deposited, encased, moulded, and at length fashioned into nearly its natural form and consistence. Here is a process half growth, half inflammation; and it does seem to us that the smaller vessels have a power conferred on them which they did not previously possess, rather than that they are deprived of their usual quantum of it. We give this as an apposite example, but the reparative process is in principle the same, whether a bone have been broken or a finger cut, in whatever tissue, in short, it is exerted.

The treatment of inflammation should teach us something of its nature. It tells us this—that inflammation is not always the same, that acute inflammation is remedied by what empties and relaxes the large vessels and the small—that certain forms of chronic inflammation are best treated by what astringes and gives tone to them. Who does not know that phlegmonous inflammation is best treated by depletion, local or general, or both; and by the application of warmth and moisture, agents especially calculated to relax? We think this instance sufficient to upset the doctrine which makes inflammation consist in debility of vessels; at least we never heard, nor can our own poor ingenuity devise a satisfactory explanation on such principles. That inflammation is also benefited by astringents we admit; but it is not that of the most acute kind: and in discussing the proximate cause of inflammation, we are taking phlegmonous inflammation as the standard.

Dr. Phillips may complain that we have offered no analytical account of his work. We recommend all who wish to see the theory to which we have now so frequently alluded stated explicitly, and supported ably, to peruse the work itself. It does credit to the research and the judgment of its author.

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## III.—(BIS.)

MEDICAL BIBLIOGRAPHY: A and B. By *James Atkinson*, Senior Surgeon to the York County Hospital and the York Dispensary, &c. &c. Royal 8vo, pp. 382. London, Churchill, 1834.

DURING the whole of *our* bibliographical labours, which have not been few, we have never encountered so singular and remarkable a book as that now before us. It unites the German research of a Plouquet, with the ravings of Rabelais—the humor of Sterne with the satire of Democritus—the learning of Burton, with the wit of Pindar,—we mean, of course, PETER Pindar! We regret, almost as much as the author, that there is no probability of a completion of the work. As a large volume is occupied with two letters of the alphabet, and as the compiler can be little short of the age allotted to man, we can hardly expect that even a second volume shall ever be edited by Mr. Atkinson! This melancholy prospect has not escaped our author. In a note at page 49, the following passage occurs, and will bear us out in our sombre forebodings.

"But I must here, however, request to make a digression. I must indeed, and in favour of this immortal Haller, since time and tide will stay for no man, Incerta omnibus spes est vitæ, senibus non incerta solum sed omnino vix ulla superest.—Haller. Nor little can I expect to live so long, as to enable me in possibility, to proceed in my alphabet to letter H. And is not vita brevis, and tempus arctum? Are not libri multi, and nummi parci? And have I not well surveyed the mouth of that molaris fellow, old edax rerum? He is to me, reader, of frightful aspect. For teeth beset his mouth and palate in all directions—the most cruel and diversified. He is carnivorous, nay, omnivorous; with most formidable crotophite muscles; which befit him to destroy, not only poor me, but any thing." 49.

The work is addressed to "all idle medical students in Great Britain," and is embellished with a humorous figure of the os SACRUM! The wit of this may not be detected at first sight; it may thus be explained—

To
All Idle Medical Students
in
Great Britain,
Sit
SACRUM.

Although the author has drawn inexhaustible stores of learning from our German literati, he seems to have an insuperable antipathy to the German language—and indeed to all *dead* tongues.

"I have studiously avoided much communication with the Germans, or with their most excellent authors, and, in most humble deference, with the dead languages; for, every thing dead, except victuals, I abhor. And, notwithstanding I possess Noëhden's German Grammar or Syntax; yet I know not so much of that tongue as a of neat's tongue; or, as a child just born. Nay, in point of guttural expression, I know less. The German tongue is to me most odontolgoid and difficult. And although I am very sensible that mere dint of application may convert an alphabet into a language, yet all the patent presses in a printing-office, could not squeeze one syllable of the German accent out of my tongue."—*Preface*, i.

The plan of the laborious compilation under review is to give a catalogue of each author's writings, and also all the editions of them in chronological order, with a few brief remarks interspersed among the editions. This task must have occupied the author many years, and a drier or more monotonous avocation could scarcely be imagined! Thus the mere catalogue of Aristotle's writings and the different editions, fills eight royal octavo pages—and this small portion of the book alone might seem to require half a life-time to ferret out every printer and commentator, from Joann Mentelius, of Mantua, in 1470, down to Camus, of Paris, in 1783!

It would appear that the dulness of the pursuit had the effect of accumulating the vivacity of the compiler, which every now and then bursts from its place of confinement and surprizes the reader by the contrast of quaint humour with dusty catalogues, monotonous dates, and barbarous names. Thus, speaking of a very fine edition of Aristotle, in Gothic characters, with figured capitals, long lines, catch-words, and registrum cartharum, printed in 1496, in Venice, and preserved in the York Minster library, our facetious bibliographer observes:—"Some philosophical snail, however, has left vestiges in writing of his slow commentating track upon the margin of the first folium of Lib. i. de Cœlo. He would have been a long time, if we may judge by this progress, in creeping up to this ceiling, or cœlo."

Passing over several ancient physicians, we have the following remarks on Asclepiades and Avicenna.

"Asclepiades was, by report, a wild, erratic vagabond son of physic, but a talented man. Fragments of his works and genius are recorded by the above authors. He derided and lived without physic,—I mean, without taking it—to the age of 80.—Wonderful!

In some respects I doubt, Avicenna had chosen him for a pattern. He prescribed wine for himself, and for his patients—sometimes to excess. Pliny relates that he died from a fall.

Of him says the comical poet:

'Wherefore to cure all his bruises and knocks,
He was used to drink vinum orthodox;
And one day did it so effectually,
He dislocated his epistrophe.'"* 14.

Speaking of the *Tetrabiblos* of Ætius, as an excerpt from the writings of the ancients, our humorous author has a sly hit at some modern bibles.

"Now there are too many tea-tray bibles in our days; which makes them worth nothing. Every old washerwoman has her bit of butter sent to her, from

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* Epistrophe is the swivel of the neck.

the huckster's shop, wrapt up in one of the leaves. And I have occasionally seen them, like so many muscæ volitantes in the turbid humours of a diseased eye, scudding about in all directions, or swimming down the channel of a common sewer." 44.

Although the *tea-tray* pun is not the brightest piece of wit in the world, yet it is as good as many of those witticisms which amuse our Sunday readers of hebdomadal newspapers.

The writings of ALBERTUS Bolstalius furnishes our author with several passages of sarcastic commentaries—and some severe squibs on the Bishops of old. These, however, we shall pass over, as the Bishops have enemies enough in our days.

When speaking of John de Gaddesden's "Rosa Anglica," he quotes a modest prefix of honest John, which runs thus :—

> "Et sicut Rosa excellit omnes flores ;
> Ita iste liber excellit omnes practicas medicinæ."

Among the various proofs of the antiquity of the venereal disease, the following is no bad specimen :—

"John de Gaddesden, about the year 1340, writes of infection thus, 'Primo notandum quod ille qui timet de excoriatione et arsura virgæ post coitum statim lavet virgam cum aqua mixta aceto, val cum urina propria, et nihil mali habebit' —indeed!

And also de ulcere Virgæ, 'Sed si quis vult membrum ab omni corruptione servare cum a muliere recedit quam forte habet *suspectam* de immunditie, (is this from uncleanliness or infection?) lavet illud cum aqua frigida mixta cum aceto, vel urina propria intra vel extra præputium.' How simple the cure by ablution —for a Jew!" 97.

Our author, though a Roman Catholic, does not appear to be very straight-laced in religious creeds. The following passage will make most of our readers smile.

"But in religious matters I must affect nothing, for I am no Unitarian, no Biarian, no Trinitarian, no in unum Congregarian, no methodist or Ranter, no Protestant: except that I protest merely to be, a (bon) Roman Catholic, as the best Catholicon going. For sic itur (I am told) ad astra—and who travels safer? Nay I will not even condescend to be a free thinker, though I doubt a free writer. My own free wit I fear, (like too much common salt) when in full dose will make you sick; but when I wish to give any for a cure; to be administered pure; I steal, or borrow, or run a-tic. Since, however, every thing now is 'No Popery,' to what a miserable existence are we poor Papists doomed! Hard is the fate of him, whose preservation and every other ration seems to depend upon his chylification. Whose class even as an animal can scarcely be identified. He is obliged, from the temperate laws of his religion, to be continually varying his dietetic circumstances. He is not strictly speaking, a carnivorous animal, although he be man, and as man should be: because he is often interdicted eating meat. He is not a high-bred, but a hybrid Christian. If he be allowed 'permissu superiorum,' to eat this meat, (rarely venison,) once a week, the next, he dares scarcely chew the cud, or if none be there to chew, he downright starves. Now, there might be some prospect of a blissful year for him, were there luckily a leap year of Lent, or rather a leap over lent year; but no —the vermin papist is like the horse in a mill, or like the maggot in a deaf nut, who works incessantly, and in vain, round the dark concave of a melancholy pabuless circle, neither with beginning nor end—sad emblem of Eternity!" 123.

We must draw to a close our brief notice of this humorous and unique performance, by only one more extract. After alluding to a quack doctor of the name of M'Adam, who appears to have been "Yorkshire too," but with whom Mr. Atkinson says he never exchanged cards, he introduces the following anecdote of—

"Mc'ADAM,
The Doctor Viarum, or Road Doctor.

This appellation is not synonymous with *make* Adam, as we shall see below; for, Adam primus had no father.

The present Mc'Adam is a hardened character and must not be forgotten. He is famous at this day for making hard, and mending soft, turnpike roads.

He could not have learnt this art from his ancestors, as they resided in a garden, and never went but once (post haste) out of it! Before that period they walked on turf, or fortunately, had gone on velvet, until Satan was the ruin of them. But he may have acquired it from the Romans, whose military roads were much on this construction.

ANECDOTE.

Being one of the commissioners for a turnpike road, near York, we were letting the toll and repairing of the road, to the best bidder. Each candidate brought some pretensions of skill in the art of road making; one of them, (a rough subject) was asked, if he was acquainted with the new mode of Mc'Adam? Mc'Adam! why gentlemen, he replied, I made roads before Adam was born!" 171.

We must now take leave of our facetious bibliographer, strongly recommending his book to the attention of all our melancholy or hypochondriacal brethren—for if it does not make their sides shake with laughter, they are too far gone in the "blue devils," to leave any hope of recovery.

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## IV.—(BIS.)
## RECENT ANATOMICAL PLATES.

I. A DEMONSTRATION OF THE NERVES OF THE HUMAN BODY, &c. CONSISTING OF FOUR PARTS. PART IV. THE SPINAL NERVES. By *Joseph Swan*. Price Four Guineas. Longman's, London, 1834.

II. A SERIES OF ANATOMICAL PLATES, IN LITHOGRAPHY, WITH REFERENCES AND PHYSIOLOGICAL COMMENTS, ILLUSTRATING THE STRUCTURE OF THE DIFFERENT PARTS OF THE HUMAN BODY. Edited by *Jones Quain*, M.D. Professor of Anatomy and Physiology in the University of London. Division I. MUSCLES. Fasciculi I. to IX. Price 2s. each Fasciculus.

III. ILLUSTRATIONS OF ALL THE MOST CELEBRATED MEDICAL AND SURGICAL WORKS, COMPRISING A COMPLETE SYSTEM OF MORBID AND DESCRIPTIVE ANATOMY, &c. Fasciculi I. to IX. Price 3d. each.

IV. THE ANATOMY AND SURGERY OF INGUINAL AND FEMORAL HERNIA, ILLUSTRATED BY PLATES, COLOURED FROM NATURE. By *E. W. Tuson*, F.L.S. Assistant-Surgeon to the Middlesex Hospital, &c. Price 2*l.* 2*s.*

PERHAPS these are not all the illustrations of anatomy recently published or actually in process of publication in this Country. There may be others which escape our notice, but probably these are brought before the public with the highest recommendations and the fairest promise. When we add to the list the Delineations of Morbid Changes, by Hope, Carswell, and Cruveilhier, we may afford the more retired members of our profession a faint idea of the struggle for profit or for fame, which convulses artists, booksellers, and doctors.

Within these last few years the number of anatomical plates that have been published exceed all rational belief. English, French, Germans, and Americans have successively brought their wares to market. Each and all have deplored the hiatus that remains to be filled up—have pointed out in the strongest terms the wants of the community, and the obvious necessity for a good and cheap series of anatomical engravings—have hinted that they could satisfy those wants and obviate that necessity—yet the last-comer still discovers that his predecessors have not realized the general expectation, and that *he* is exactly the man.

If the general principle of supply and demand is applicable to subjects of this nature, the profession in this Country must experience an isatiable appetite for anatomical plates. System after system appears and is devoured —dropping like the passengers through the crevices and pitfalls of the rotten bridge, in the pleasing allegory of Goldsmith, (we think that it was his,) into the deep waters of oblivion below.

Yet there are some circumstances which lead us to suspect, that the demand is *not* proportioned to the inordinate supply. We have frequently observed the commencement of undertakings of this nature—have gazed with admiration at fasciculus one, two, three—and then the vision has vanished for ever. The surgical world has seen engravings of extremities, to which a trunk has never been appended—trunks, frightful to relate, headless, and with severed limbs.

> Apparent rari nantes in gurgite vasto
> Arma virum, galeæque, et Troia gaza per undas.

The sudden and mysterious disappearance of a predecessor seems to excite no alarm in the breasts of those who follow. Each succeeding speculator mourns over the deficiencies to be supplied—hints that the discriminating public may now expect to be satisfied—promises with confidence and liberality, and descends to the tomb of the Capulets as others did before him.

Seriously, we think that works of this description should not be commenced without due consideration, and a firm resolution to carry them on to their completion. The public have become suspicious, and purchasers, to our own knowledge, have refused to expend their money upon parts till they felt assured of the appearance of the whole. It is a species of gambling, and something akin to a cheat, to entrap unsuspecting persons into

laying out their money on imperfect wares. The publisher who sells a single fasciculus of a work which he says will be completed, does morally guarantee the completion to the buyer. If he breaks his word, there is probably little immediate redress, but retributive justice overtakes the trade in the suspicious unwillingness of the public to purchase.

We fear that another unpleasant reflection presents itself to the mind of the most kindly critic. He cannot but question the justice of the idea, that anatomical plates of the description offered by many booksellers, are really acquisitions to the youth of the profession.—"Cheap and nasty," as many of them have been, we think they have proved dear in reality to the buyers. The best judges have come to the conclusion that if any more anatomical engravings are wanted, they should be of the very highest order. We have had too much from the auction mart already. It is true that the expense would be considerable, frightful—that the present sale would be doubtful and inadequate—that no man in trade, perhaps no individual whatever would be justified in incurring the outlay of capital or the expenditure of labour. We entertain no doubt that they would pay at last, but we could not dare to define the period.

The College of Surgeons might undertake this national work—might consent to sacrifice a portion of its funds, in order to render it accessible to those of moderate means. The College possesses facilities which no idividual can obtain—might do the most at the least expense—might benefit the profession without material loss to itself, perhaps without any ultimate loss whatever. This is one of many boons which the College might confer upon its members—which some contend that it should. We hope to see the day when the College will be foremost in works of utility, and when its power will be exerted to the uttermost in vindicating the honour of the profession, as a learned and accomplished body, in stretching its helping hand to needy merit, and in ardently promoting the interests of science.

At the head of the works before us is that of Mr. Swan. It has left all competitors at an immeasurable distance.

> Unde nil majus generatur ipso,
> Nec viget quicquam simile aut secundum.

If a national system of anatomical plates were constructed, these of Mr. Swan should form a component part of it. If the other portions of the body were delineated with the same exactness and the same effect, we might challenge the world to produce their superiors.

The part before us, the fourth and last, is devoted to the exhibition of the anatomy of the spinal nerves. It consists of nine copper-plate engravings, and as many illustrative outlines. Of the execution we need say little. It equals that of the preceding parts; and to say this, is to express that it excels all other anatomical engravings that have ever been presented to the world, in this country or in any other. Criticism, in the instance of these drawings and engravings, is surprized to find herself metamorphosed to the language of encomium. Yet the modesty of Mr. Swan deems it necessary to apologize thus for the artist.

"In the prosecution of this work, every endeavour has been used for representing clearly and accurately the complicated preparations on which it has been entirely founded. If instruction is the principal object of anatomical plates, and not the gratification of the imagination, distinctness must be the leading

feature; and, therefore, the rules of the artist must, in some measure, be infringed upon, as it is often impossible to give all the minute parts clearly in detail, and preserve the proportionate degree of light and shade necessary for the perfection of the whole."

With the concluding portion of this unaffected passage we cordially agree.

So long as the principal objects are intelligibly delineated, plates will convey such information respecting the precise situation of the most minute and intricate parts as cannot be derived from words, however carefully and judiciously these may have been selected and arranged."

There can be no question of the utility of good plates, even to him who dissects with zeal. There can be little doubt of the danger of bad ones.

Did we feel inclined to point out individual excellencies, we would turn to the delineations of the nerves of the neck, the shoulder, the arm, and the foot. In the instance of the latter and the hand, their anatomy is displayed with a clearness which robs it of all difficulty or confusion.

Mr. Swan's noble work is now brought to a conclusion. He deserves the warmest thanks of the profession—the kindest encouragement and patronage from the College. We trust he will have both. In these splendid plates there is much to praise—the patience and the toil of the dissector, the skill of the engraver. Censure's occupation's gone, and probably there is little even to amend. But we think that there are some omissions—that more plates might be added—that some minute points might be more completely illustrated. The distribution of the suboccipital and second and third cervical nerves might be farther shewn—the sacral nerves might perhaps be displayed with more exactness. In short, the only fault that can possibly be found with Mr. Swan is one of a flattering description—we have not quite enough of him.

Nine Fasciculi of Mr. Quain's plates are before us. The responsible situation which this gentleman fills, with honour to himself and advantage to his class, is a guarantee for their completion, were no other present. But the character and the popularity of the work are amply sufficient to ensure its continuance.

The plates are lithographed, of folio size, that is, of nearly natural dimensions, and two are contained in each fasciculus. The nine now lying before us display the muscles of the face, head, neck, of the larynx and the pharynx, and of the upper extremity. The number of fasciculi will be about one hundred and twenty-five, or say one hundred and thirty; and, as each is to cost two shillings, the expense of the whole will amount to about thirteen pounds. Now this, for lithography, is no inconsiderable sum, and the purchaser has a right to expect that the execution shall be of a high order. We are sorry to say that it is not—we are compelled to animadvert on the smudgy indistinctness of many of the plates, and the very indifferent appearance of the majority. It must be remembered that all, or almost all are copies—that lithography is cheap—that the plates of Cloquet and of Knox are already in the market. We repeat that these plates are not what they should be. As the names of the artists are brought prominently forward by Mr. Quain, in his prospectus, our readers may be gratified at learning that the drawings are by Mr. W. Fairland, the printing by Hulmandel. We think it would have been more charitable in Mr. Quain to have spared the modest blushes of these gentlemen. We are induced to make these

animadversions, because the work might be much improved, and because, for its price, it should be so. On a future occasion, we shall take an opportunity of noticing the amendment, which we do not doubt will be effected.

We differ from Mr. Quain in one important particular. With the referential description of the plates, he has mixed up discourses de omnibus rebus, et quibusdam aliis. Physiology, pathology, dislocations, &c. &c. are treated of. We do not hesitate to term this a *bore*, a positive nuisance. God knows there are sciolists enough now-a-days, without this unceasing attempt to manufacture more. Turn to what book we will the title-page takes us in. If a work of anatomy appears, it is sure to be inflated to a most unnatural bulk with odds and ends of pathology and surgery :—

Like some patch'd dog-hole, eked with ends of wall.

Let our medical cobblers stick to their lasts—let them, for Heaven's sake, do what they profess, and do no more. We do not look to anatomical plates for a treatise upon dislocations. There are able works enough on that subject, to say nothing of the manuals and sub-manuals which are pelted at the brains of students from every shop window.

Enough o' this, Hal, an you love me.

Of the ILLUSTRATIONS OF ALL THE MOST CELEBRATED MEDICAL AND SURGICAL WORKS, we will only say, that we think the speculation can never succeed. We suspect that more money has been lost in second and third-rate undertakings, than would probably have rendered the success of a first-rate work secure.

Mr. Tuson's mode of shewing the anatomy of inguinal and femoral hernia by layers is ingenious. He has been anticipated by Mr. Bloxham, whose book was noticed in a late Number of this Journal. Can the anatomy of hernia be learnt upon paper ?

It may seem that some of our remarks have been ill-natured. We will say, once for all, that there is no Journal, daily, weekly, or quarterly—medical or general, in which considerations of a private description have less influence than in this. We state it openly and honestly. Such is the condition of medical literature, that the pruning knife is become too necessary. The critic that applies it must expect some odium ; but, if he possesses any love for his profession, he has no alternative. None can be more ready than ourselves to bestow deserved eulogy—none *do* bestow it with more warmth. It is with pain we censure, and we censure to improve. With the candid and the liberal, let this be our apology.

## V.

Du Procédé Opératoire a suivre dans l'Exploration des Organes, par la Percussion Mediate, &c. Par *P. A. Piorry*, &c. &c. &c. Paris, 1831, in 8vo.

Although percussion is now very commonly employed in this country in conjunction with auscultation in our examinations of the state of the thoracic organs, it is not generally—or rather we believe—it is very rarely performed in the systematic method recommended by M. Piorry. To those who are not fully aware of the extent to which such a mode of percussion may be made available in discovering various morbid conditions, in situations where auscultation alone has failed, or been inapplicable, the analysis we are about to make of the work whose title is prefixed to this article will not, we persuade ourselves, be wholly unacceptable.

The object of percussion is to ascertain the condition of those organs which are within the reach of its influence. M. P. professes to obtain this object more or less completely by an appreciation of the various sounds elicited and sensations caused by percussion over the parts examined through the medium of a thin circular plate of ivory, box-wood, copper, &c.

Whatever adds precision to diagnosis, however apparently insignificant the observation, or simple the device, is valuable. Why interpose this remark? The generation has not yet passed away among whom Laennec's cylinder was—we might say is—the object of sneering and derision—that simple instrument, which his genius, his ardour of research, and patience of observation, have rendered the means of effecting changes in a great division of pathology that the most sanguine could scarcely have anticipated. Should the eyes of any of that generation glance upon these pages, their contents, we would forewarn them, are addressed to readers of another class—to students who have really laid their hand to the plough of their profession—students who are earnestly engaged in the pursuit of truth, and ready to hail it whenever and whencesoever it may appear as light from Heaven.

Let those who, in obedience to a wise scepticism, doubt the extent of the utility which M. Piorry ascribes to his process, search for themselves upon the dead subject, and compare the state of parts with the sounds elicited from them by percussion. Let them compare the results obtained in the dead with those in the living subject. The liver—the spleen—the lungs—the intestinal canal distended with gas, must necessarily yield the same sounds immediately after death that they did immediately before. Death does not in an instant change the physical consistence of tissues: it is not life that makes them hard or soft—large or small—full or empty; a gas, a liquid, or a solid, whether they exist in the living or dead subject, must still possess the consistence of a gas, a liquid, or a solid. And the results of percussion therefore must, cæteris paribus, be similar before to what they would be after death.

The method latterly recommended by M. P. as facilitating the study of pleximetry, has been to practise on the different organs laid bare. The ear is thus made acquainted with the sounds yielded by the different tissues, and

enabled to recognize them more readily afterwards in the living subject. The proceeding seems rational, and we doubt not will be adopted by those whose zeal corresponds with their opportunities. Let it not be supposed, however, that two or three trials are sufficient to enable the experimenter to decide upon the merits of our subject. Our senses require education; and it is of very recent date that we have begun to cultivate that of hearing—at least in reference to the peculiar class of sounds, the appreciation of which has been rendered so important by the application of auscultation and plexímetry to pathological investigations. Nor is the ear the only organ through which M. P.'s process furnishes us with information. The success of our pleximetric examinations will very much depend on our readiness in appreciating the sensation produced in the fingers with which the operation is performed. It is by means of this sensation for instance that we are able to infer at once and very exactly not merely the density of integuments, but that of the liver covered by them, and separated from them by the intervention of ribs and a portion of lung distended with air. To do this however on all occasions, and, as we have said, very exactly, requires practice. "Pleximetry," observes M. Piorry, "constitutes a part of the chirurgy of diagnosis: and the knowledge necessary to the performance of the simplest operation is not to be acquired without study."

In imitation of Laennec, our author has assigned names to particular sounds, but has not, in our opinion, been very happy in his nomenclature. To the sound produced by percussion on the frontal bone, where the finger experiences the maximum of resistance, he has affixed the term *osteal*. The terms jecoral, cardial, stomachal, &c. indicate the parts whose sounds and impressions he has adopted as types. Percussion on the fleshy part of the thigh produces a double impression of hearing and touch representing the sound and density of the left ventricle. The parts of the liver in contact with the ribs yield a duller sound and offer more resistance than the thigh.

The type of the sound and elasticity of the lung is perceived by percussion on the chest at the central point between the nipple and clavicle. The *most* perfect type of what is called *humoric resonance* is obtained by placing the palms of the hands together, so as to enclose a certain portion of air, and then as children do to produce the sound of money—striking the back of one of the hands on the knee.

This humoric or metallic resonance indicates air escaping by a narrow opening from a spacious cavity: the term *humoric* is therefore manifestly ill-chosen—since it implies that the production of the sound in question is connected with a liquid, which is not necessarily the case.

The type of the sensation produced by percussion over a large cyst of hydatids is nearly approached by tapping jelly of firm consistence—or it is still more exactly represented, according to M. Piorry, in the feeling of vibration perceived if we place a repeating watch on its back in the palm of the hand. He deduces from certain experiments that the vibration is perceptible in proportion to the quantity of the acephalocysts relatively to the fluid in which they are immersed.

To proceed however to the author's directions for studying pleximetry in the dead subject.

"The anterior parietes of the thorax and abdomen being removed so as to

leave the parts beneath as nearly as possible in their natural position, percussion should be practised on each part in situ. The clear sound of the lung and the dull sounds peculiar to the heart and liver will be heard:—The differences of resistance and of resonance furnished by the right side of the heart gorged with fluid, and the more muscular left side containing much less blood. The dull sound caused by the portion of liver, which pressing the diaphragm upwards, rises under the inferior margin of the right lung a thin layer of which is spread over it.

The resonance produced by percussion of the liver will vary from above downwards: above, where it is thickest, the sound will be most obscure, and the resistance greatest: below, with the sound peculiar to the liver, there will be joined the tympanitic sound caused by the presence of the intestinal canal filled with gas. On the point corresponding with the gall-bladder will be found sometimes dull sound without resistance—at others the humoric resonance. (?) The stomach—cæcum—large intestines—if much distended with gas, will yield their peculiar tympanitic sounds—if they contain liquids, the humoric resonance, whilst they offer no resistance to the finger with which percussion is made.

A body will next be opened from behind. Here the lungs will generally be found to yield a more obscure sound, and to present rather more resistance to the finger than anteriorly, in consequence of cadaveric engorgement. Below these organs the sound and resistance peculiar to the liver will be remarked on the right side, and on the left the dull sound and resistance caused by the spleen, combined with the elasticity of the neighbouring portions of the digestive tube:—lower down a duller sound and impression of greater density will be furnished by the kidneys—and external to these the tympanitic resonance of the large intestines filled with gas will be obtained."

"The bladder may be examined by injecting water into it, in different quantities, when it will afford its corresponding impressions both to the ear and touch;" and, in like manner, the physical conditions of the other organs may be varied for the purposes of experimental examination, *e. g.* by forcing air into the lungs their elasticity and sonoreity may be increased—or the reverse, by injecting them with water. The right side of the heart may be dilated by injecting it from the vena cava—and sounds and degrees of resistance, corresponding with the changes thus produced, obtained. Artificial effusions in the pleura—pericardium—peritoneum—may also be advantageously studied. In all cases in which the physical conditions of tissues are changed by disease, this method of examining by percussion, after having exposed them, is recommended, until a knowledge of the sounds and impressions of density peculiar to each is attained. This being done, we shall be capable of appreciating those produced by similar conditions in the living subject.

Let us now accompany M. Piorry to the pleximetric examination of particular organs or parts—and firstly,

## Of the Lungs and Pleura.

We would previously make the general remark, that the muscles, on which the pleximeter is applied, should be as relaxed as possible. It is especially important to remember this in examining the abdomen; for a contracted muscle will afford a sensation of hardness, due merely to its contraction, and of course not present when it is relaxed. It is not necessary to apply the pleximeter to the skin, but the lighter and fewer the mate-

rials interposed the better. The pleximeter should be held firmly between the thumb and fore-finger, and applied very exactly to the surface, so that no air may escape from any part of its circumference, whence would result the metallic resonance already alluded to.

"The person to be examined may be either in a sitting or recumbent posture. The pleximeter should be placed at the head of the sternum; the strokes upon it should be first gentle, then stronger; the sound in this position will be generally tympanitic, and the impression conveyed through the finger, that afforded by an elastic body. The instrument will be brought gradually downwards along the median line until the sound becomes obscure, and a certain degree of resistance is perceived (this will, in most cases, be about three inches above the xyphoid cartilage; it is caused by the right side of the heart—is not very perceptible *to a beginner*, and requires pretty strong percussion to be rendered sensible.) The spot where this change is remarked should be carefully noted. The lateral regions should be examined with equal care. To examine the triangular space above the clavicle, and which corresponds with the summit of the lung, the head should be inclined to the side opposite that examined. Below the clavicle, percussion, as before, should be performed from above downwards, and in succession over the whole surface of the chest. To judge of the degree of elasticity or density of the lungs, the patient should be directed to make as full an inspiration as he can, percussion being made at the same time; then a forced expiration, when percussion is again to be performed, and the results in these two conditions compared. If the lung be indurated, there will be no more elasticity or sound at the diseased part in the one case than in the other; whilst, in a nearly healthy lung, the difference will be very sensible."

In very emaciated subjects, notwithstanding M. Piorry's ingenious contrivances to adapt his pleximeter to the unequal surface caused by the projecting ribs, we beg leave, with great deference, to observe that the hand is by far the better instrument. If the integuments are very thick, from obesity, emphysema, or œdema, the pleximeter should be pressed firmly down upon them, so as to rest as nearly as possible on the ribs. The same observation applies to the mamma—or, when large, it should be pressed to one side.

Percussion should be made alternately on corresponding parts of each side of the chest; first gently, to ascertain the condition of the superficial layers of the lung—then more strongly, to discover the state of its more deeply-seated portions. At the lower part of the right lung, as the instrument is carried downwards, the sound becomes gradually more obscure, and the sense of resistance greater, until, at length, we obtain the pleximetric signs denoting the presence of the liver. In a healthy subject, the sound becomes dull, and the resistance is perceived higher up on the left side than on the right. The presence of the heart is indicated, extending sometimes as far as the margin of the ribs. The situation and extent of this change of sound and density vary, according as the stomach is full or empty, the spleen hypertrophied or otherwise, &c.

We cannot follow M. Piorry through his minute directions for examining the posterior surface of the thorax—suffice it to observe, that percussion should be performed over every part that covers a portion of lung.

*Pleura.* When pleuritic effusion is suspected, the examination should be commenced posteriorly; if it exist, there will be a dull sound on percussion at the most dependent part of the thorax—at the lowest part of the right

side there will, in the normal state, be always a dull sound, caused by the presence of the liver; but, if there be no effusion, a gentle percussion will elicit a certain degree of sonoreity, sufficient to indicate, to a practised ear, the presence of the thin layer of lung that intervenes between the superior surface of the hepatic organ and the ribs.

M. P. says that the observation should be extended to left side, especially if the spleen be enlarged.

When the dull sound is observed above the superior margin of the liver on one side, or of the spleen on the other, its limits should be marked with nitrate of silver; we are next to examine the lateral and anterior parts of the thorax, noting the parts whose sonoreity and elasticity are most perfect; the position of the patient being then changed, so that the fluid, if there be any, may gravitate into those parts. If the part where the dull sound previously existed have recovered its sonoreity, and the sonorous parts have become dull, we may be satisfied of the existence of effusion. To be certain of it, we may repeat the process as often as we find it necessary, and, as M. Piorry observes, with a jealous regard for the honor of the process, "we should never give an opinion as long as a doubt hangs over our mind."

There are certain morbid conditions which it will be well to remember, in order to guard against errors into which we might otherwise be led.

1. "An effusion may be limited by surrounding adhesions to a particular spot, and that not the most depending. If, within this space, the fluid has room to move from one part to another, percussion, by eliciting now a dull, and now a sonorous sound, according to the position of the patient, will reveal the morbid condition. This partial displacement, however, it must be confessed, rarely happens, and then there is often no mode of ascertaining whether the dull sound proceeds from effusion, pneumonia, induration of the lung, &c.

2. An adhesion may retain the lung at a particular point of the thoracic parietes, whilst the rest of the pleura is filled with serum. At that point, the sonoreity will be observed and respiration heard.

In cases of extensive effusion, we shall still find above the clavicle the clear sound and elasticity of the lung. In such cases, also, it may be observed, the dull sound may extend beyond the median line into the healthy side, the heart may be more or less displaced; and when the effusion occurs in the right pleura, the liver may be forced several inches below the margin of the ribs. All these circumstances should enter into the formation of our diagnosis. In such cases, moreover, mensuration of the thorax and the convex appearance of the intercostal spaces, greater on one side than on the other, will also contribute to its certainty.

*Lungs.* M. Piorry occupies several pages in showing that the art of diagnosis, in parenchymatous inflammation of the lungs, is far from having arrived at the high degree of perfection that many suppose. He observes that, in numerous instances among the aged patients of the Salpetrière, the *prune juice* expectoration has occurred where there was no pneumonia—where there was no other disease than obstruction of the circulation of the heart; on the other hand, that the most intense pneumonia has existed, unaccompanied by such expectoration, with very little embarrassment of respiration, and without pain of side; and this he declares himself to have witnessed in hundreds of cases!

"The crepitous rattle being nothing more (he observes) than sounds produced by air passing through liquids effused in the minutest bronchial ramifications, almost where they terminate in the air-cells, is not more diagnostic of pneumonia than of some other diseases of the lungs, in which an analogous condition exists, serum, blood, or any liquid, poured out into those very minute branches of the bronchial tree, will serve for its production. It is more frequently heard in pneumonia than in other pulmonary affections, because it is the nature of that disease that it should exist amongst, and, in its course, cause effusion of fluid into, the minutest bronchial ramifications. But the crepitous rattle occurs also in other diseases, as asphyxia, *par l'ecume bronchique*—pulmonary œdema; it is also met with in the cases of the aged, whose debilitated organs are not equal to the task of disencumbering the lungs of the fluids they contain."

This sign, however, we are happy to find, when it occurs in connexion with those furnished by mediate percussion, perfectly satisfies M. Piorry; so it does us.

We think our author might have saved some valuable time, had he merely stated generally—that, when we have several means of investigation, we should not be satisfied with the signs furnished by only a few of them—at least in any case of a doubtful character. He adduces, as an illustration of this, the circumstance, that pectoriloquy may occur with mere induration of a portion of lung, a fact denied by Laennec, but which appears to have been established by Cruveilhier; and the author declares that he has heard the voice passing up the tube from a part where there were only a mass of tubercles, or a portion of hepatized lung permeated by a large bronchial tube. On the other hand (the experiment is worth recording), he has ascertained that, on auscultating the larger bronchi in a dead subject, whilst another person spoke into the larynx, or a cavity attached to the trachea, representing the larynx, if the utterance was distinct, the most perfect pectoriloquy was obtained. If the voice was particularly strong and sonorous, there was bronchophony; if weak and sharp, œgophony. On coughing or breathing into such a cavity, the tubal voice (voix tubaire) and cavernous respiration were heard; and certainly there appears no reason why similar results should not be obtained in the living subject.

With regard to the signs obtained by mediate percussion, in disease of the pulmonary parenchyma, they may be briefly stated.

Pulmonary congestion is not distinguishable, by percussion, from the first stage of pneumonia; in both, the sound is more obscure than when the lung is healthy, and the resistance to the finger greater. In the second and third stages of pneumonia, the obscurity of sound and resistance are considerably greater.

When there exist extensive tubercular masses, the sense of resistance is yet greater, in some cases almost approaching to that of bone. If induration exist only in the centre of the lung, a strong percussion will be attended by a sense of resistance and an obscure sound, proportioned to the depth of the physical lesion.

Metallic tinkling has almost invariably indicated tubercular cavities: to obtain it, percussion should be made with a certain degree of force, and the finger quickly raised. The size of the cavity may be accurately measured, by marking the points around it where the dull sound commences.

A singular case is narrated, of a portion of lung forming a tumor at the posterior and inferior part of the thorax, near the spine. It was recent, of

about a hand's breadth, and projected about an inch and a half above the surrounding surface. Some fancied they perceived an obscure fluctuation in it, and it was on the point of being opened, when M. Michow, by whom the case was communicated to M. Piorry, obtained by mediate percussion a clear sound from the swelling. It was at once evident that the tumor contained either a fold of intestine or a portion of lung. On auscultating, the respiratory murmur was heard, and the real nature of the case of course made clear. M. Piorry remarks that, "here, direct percussion would have been impossible." Why? The Doctors thought it advisable to leave the tumor to itself. Not so the patient; she applied to a midwife, who, with the unpremeditating courage of ignorance, plunged a bistoury into it. A little matter flowed out—a portion of lung was seen through the wound, and the two last ribs partially destroyed by caries, in consequence of which the lung had been enabled to escape.

We next proceed to the consideration of mediate percussion, as applied to the exploration of the heart and its appendages. Here, we must confess, our author's certainly not unnatural admiration of a process, whose utility he has so ably developed, makes him somewhat prolix. It is unnecessary to occupy much space in shewing that auscultation alone, although it may, and in very many cases does, most materially assist in the formation of correct diagnoses, is much less useful as applied to diseases of the heart than those of the lungs. M. P. cites many cases in proof of this; some in which there existed a distinct and unintermitting bellows-sound and bruit de râpe in the region of the heart, which led him to expect ossification and contraction of the auriculo-ventricular or arterial orifices; but dissection disclosed only hypertrophy of the organ. Dr. Elliotson has offered an explanation of this circumstance, namely, that "the bellows-sound will be heard whenever the *relative* capacities of the orifice and ventricle are altered." The physical cause of the sound is the increased friction of the blood against the sides of the ventricle or vessel through which it is passing. This explanation accords with the results of the more recent researches of M. Bouillaud, published in one of the Numbers of the Journal Hebdomadaire for June last. According to this accurate observer, the increase of friction, to which the bellows-sound is to be attributed, may occur principally in three conditions—to wit, 1, when the motive powers of the heart are increased; 2, when there is contraction of any part of the canal through which the column of blood has to pass; and, lastly, when there is any lesion which renders the inner and naturally highly-polished surface of this canal rough or jagged.

In examining the heart, we should have an accurate recollection of the relative situation of parts—the relations of the heart with the pleura, the right lung, the liver, and the stomach, both covered by the diaphragm. It should be remembered that the space occupied by the heart is, posteriorly, at a distance from the thoracic parietes, from which it is also separated by a layer of lung, of considerable thickness—that, to the left, it is much nearer the parietes—that, anteriorly, it touches them—that the left auricle, situated at its postero-superior part, is covered by a layer of lung—that the heart's position is oblique, so that its greatest diameter is from right to left, near to where it rests on the diaphragm, its dimension from above downward being less.

As has been already recommended, it will be useful, where there is the

opportunity, to inject the cavities in succession, in order to study the plexi-metric signs of the condition so represented. The pericardium also may be injected, either with fluid or air, to observe its changes of position, having previously to these experiments tied the trachea, to prevent the lungs collapsing when the thorax is opened.

We are directed to carry "the pleximeter from above downwards along the median line until the sound begins to be dull; the spot where this occurs is to be marked with nitrate of silver; percussion is then to be made to the right, to ascertain the situation of the upper margin of the liver, which is to be carefully defined, the pleximeter being gradually carried along it towards the left, until a deeply-seated obscure sound, not attended by resistance to the finger, is observed: this spot, after it has been distinctly ascertained by repeated trials is to be marked with caustic. The instrument will then be carried on, and generally a marked obscurity of sound, and resistance to the finger will be observed; this indicates the left ventricle, and will be distinct or not according to the thickness of its parietes, the solidity of its tissue, and its vicinity to the thoracic parietes; farther to the left the sonoreity and elasticity will gradually return."

We are thus enabled to trace with the utmost degree of precision, every point of the right and left superior portions of the heart's circumference, its relative position to the lungs, the point where the right ventricle terminates and the left begins. If the right side of the heart, however, be much distended with blood, it will cover the left side so as to prevent our ascertaining its physical condition.

In tracing its inferior circumference the principal difficulty is caused by the vicinity of the liver; the limits of this viscus are to be ascertained, when, except in some rare cases, we shall easily be enabled to mark the situation of this part of the heart.

The following alterations of situation and sound will be observed in connexion with the morbid conditions detailed below.

1. In extensive effusion into the pericardium, the dull sound is found extending longitudinally, and to the upper part of the sternum, rather than from side to side.

2. In dilatation of the right ventricle the organ extends above the upper margin of the liver, and to the right of the median line. M. Piorry declares that he has known the space thus occupied, increase and become enormous during a paroxysm of dyspnœa, almost amounting to asphyxia, and in a few instants after the paroxysm was over, and the respiration had resumed its normal state, the extent of the space was reduced to nearly its natural proportions; the sensations furnished by percussion in this state are precisely the same as those afforded by the pericardium filled with water.

3. Dilatation of the left ventricle yields a remarkable dulness of sound to the left of the cardiac region over a space proportioned to the extent of the disease, sometimes five, six, or even seven inches. If hypertrophy exist at the same time, the resistance to the finger will be proportionally great. If hypertrophy uncomplicated with dilatation, the space occupied by the left ventricle rarely exceeds its natural dimensions, but the resistance to the finger will be very great.

4. Dilatation of the right auricle is indicated by a dull sound with little resistance at the superior part of the right cardiac region. M. P. has not

observed in the living subject the signs furnished by dilatation of the left auricle.

All the cavities of the heart, but more particularly those of its right side, vary considerably in volume, according to the quantity of blood in the subject, to obstacles to the pulmonary circulation, or as there are contractions of the cardiac orifices. The heart's volume often diminishes very remarkably after bloodletting, sometimes to the extent of several inches: this may be demonstrated by pleximetry, marking with caustic the space occupied by the organ before and after venesection. These changes of volume are valuable diagnostic signs, as indicating dilatation rather than hypertrophy.

Hydrothorax on the left side, combined with disease of the heart, may be ascertained by pleximetric examination, by changing the patient's position so that the fluid may gravitate, as already observed when considering pleurisy.

Tubercles, when they exist to a considerable extent in the portion of the lung surrounding the heart, will prevent the possibility of tracing its circumference.

The stomach, intestines distended with gas or food, ascites, a tumor, hypertrophy of the spleen, or of the small lobe of the liver, may force the heart from its natural situation into those noticed above, as occupied by it in disease of its own tissue; by a careful examination however the cause of the displacement should be disclosed.

To examine the abdomen its muscles should be relaxed by having the legs gently bent, and the head somewhat elevated by pillows. The pleximeter should be pressed firmly on the integuments, especially if they are thick or œdematous.

Percussion being made along the median line from sternum to pubes superiorly there will be found the dull sound and resistance peculiar to the liver; lower down the tympanitic sound of the stomach and intestinal canal, varying according to the capacity of the different organs and the quantity and nature of their contents. Still lower, if the bladder be distended with urine, there will be found a dull sound, and slight resistance to the finger, yielding a kind of pasty feel, which it is scarcely possible to describe, and requires some practice to recognize.

Percussion should in succession be made over the whole surface of the abdomen, at first gently to ascertain the condition of its superficial contents, then more strongly to examine those which are more deeply seated.

In *peritoneal effusion* of no great extent, the parts around the umbilicus will be more sonorous than usual, on account of the fluid situated in the most dependent parts of the abdomen forcing the intestinal gases into that region; from this point we should percuss downwards until the sound becomes obscure; mark carefully the limits of the situation in which this occurs, and afterwards changing the patient's position, allow the fluid, if there be any, to gravitate—in fact, precisely as has been already recommended in pleuritic effusion.

When the effusion distends the abdominal parietes so that the intestines are no longer in contact with them there will be dull sound on percussion every where; in this case fluctuation will be so evident that there could be no mistaking the disease.

We do not deem it necessary to follow M. Piorry into all his minute

details, showing how even a few ounces of serosity may be detected, when, in consequence of peritoneal adhesion, it is partially confined in a small space. Sufficient notice has been already taken of the subject, and M. P's. farther directions will naturally suggest themselves to those who are studying the subject. In the mean time we would observe that it really is one worth studying, when we consider of how great importance it is to detect the existence of peritoneal disease in its commencement; how insidiously it often makes its approaches; and how obscure and liable to misinterpretation are many of its symptoms.

There are few, perhaps no, cases in which tenderness of abdomen will prevent the application of pleximetry if well performed: the instrument should be held firmly, and percussion performed very lightly with one finger. We should change the position of the patient slowly and cautiously, observing any unusual resonance of the intestines both superiorly and in the more dependent parts, and any change in the degrees of sonoreity subsequent to an altered position.

The nature of abdominal tumors may sometimes be conjectured by the sensation they produce in the finger on percussion, schirrus, encephaloid or fibrous tumors, not softened, impart a sensation of greater density and hardness than an abscess or cyst, whose walls are not very thick.

In examining the liver the stomach should be empty, the patient lying as for exploration of the abdomen; the part where the organ, through the medium of the diaphragm, is connected with the heart, should be carefully marked, as well as the margin of its superior surface below the lung, the extent to which this latter organ descends upon it should be carefully examined.

Percussion may first be made below the nipple, proceeding from above downwards, until the clear sound and elasticity indicate the presence of the stomach or intestines; then from below upwards to obtain the same results in an inverse order. At the middle of the organ percussion should be strong, lower down it should be gentle, to examine the thin layer of the viscus, which is there in contact with the parietes, and covers a portion of intestine. Percussion may then be made from right to left, observing where the left portion of the organ terminates. By marking these different points as we proceed with caustic, we shall have a very exact outline of the organ, and a practised experimenter will judge very accurately of the thickness of the liver by the degree of obscurity of sound, and the resistance it presents.

The height to which the liver rises in the thorax may be ascertained with the utmost precision, a circumstance of no little importance in certain cases. The inferior margin of the liver sometimes ascends several inches above the lower ribs; whilst its superior margin reaches above the nipple. If in such a case the organ be the seat of pain, the dull sound on percussion in such a situation might mislead a superficial observer, and induce him to suppose it connected with pneumonia, tubercular infiltration or pleuritic effusion, according to the nature of the concomitant symptoms. To avoid such an error we should seek the tympanitic sound of the intestine below the liver, and then carrying percussion upwards till we arrive at the viscus, we shall at once perceive that the digestive canal is pressed upwards under the ribs, whilst the liver ascends proportionally into the thorax. Having done this we ascertain its volume in the way already described, and we satisfy ourselves

that there is no pleurisy or pneumonia by the means appropriate to the diagnosis of those diseases.

This displacement of the liver may occur in cases in which there is meteorism of no very great extent, and may be partly owing to the contraction of the abdominal muscles. In its normal condition the liver generally rises to one or two inches below the nipple, and its lower edge terminates at the margin of the ribs.

According to M. Piorry's pleximetric observations, it appears that the liver undergoes much more frequent and rapid changes of volume than is commonly supposed. He has known its volume to decrease after venesection to the extent of from one to three inches from above downwards in 24 hours; and this is not only in the cases of old men whose venous circulation may have been obstructed by organic disease, or by mere debility of the heart, but in young persons labouring under plethora or attacked by acute fevers.

He relates a case of icterus in which the viscus increased in volume as the yellow hue of the integuments became more intense; as the latter faded, the liver decreased, the colour deepened, the size of the organ again increased. From these and analogous facts he arrives at certain physiological conclusions respecting some of the uses of the liver, which we can here only hint at. The sum of them is, that it serves as a reservoir of blood intended to regulate the state of the circulation. If there be too much blood in the system the organ augments—if too little, its volume decreases. A similar function, but in an inferior degree, is attributed to the lungs and muscles.

Two very distinct conditions have been confounded under the common term hepatitis: one is mere congestion: in the other there exists some source of irritation in the organ, causing a determination of blood to it, and which is truly inflammatory. These congestions cause icterus, for the hepatic granulations being distended with blood, must press upon the biliary ducts and obstruct their circulation.

In slight hydrothorax the liver is easily examined, varying by change of position the situation of the pleuritic effusion. When it is considerable, the liver will be forced downwards, and in this case it may be impossible to ascertain its volume. We may be equally at a loss in case of induration of the lower lobe of the right lung, which cannot be distinguished from the liver, unless there be a few bronchi still permeable.

In ascites as in pleuritis the situation of the fluid must, if necessary, be changed by varying the position, in order to trace the outline of the liver, and consequently to ascertain its dimensions.

Percussion, with the view of discovering the condition of the gall-bladder, we are disposed to regard as one of the refinements of the art, the consideration of which we may venture to postpone. M. Piorry declares that its situation may be recognized by the humoric resonance it affords on percussion. We are neither prepared nor inclined to dispute his authority; but it does not seem quite impossible that the neighbouring intestines may have some influence in the production of the phenomenon.

M. Piorry extends the application of pleximetry to examination of the spleen, stomach, intestines, kidneys, bladder, and womb. In the course of the preceding pages, we believe we have extracted the pith and marrow of the attributes of his *procédé*. The principles laid down for exploring the

organs that we have been considering may be readily applied to those we pass over. We take leave of the subject with feelings of respect for our talented author, and earnestly commend his process to the attention of our professional brethren.

## VI.

CLINICAL OBSERVATIONS ON THE CONSTITUTIONAL ORIGIN OF THE VARIOUS FORMS OF PORRIGO; COMMONLY KNOWN BY THE NAMES OF SCALD-HEAD, TINEA, RING-WORM, &c.: WITH DIRECTIONS FOR THE MORE SCIENTIFIC AND SUCCESSFUL MANAGEMENT OF THIS USUALLY OBSTINATE CLASS OF DISEASES, BY A TREATMENT CONSISTING OF AN APPROPRIATE MODIFICATION OF THOSE PRINCIPLES FIRST PARTICULARLY PROMULGATED BY MR. ABERNETHY. By *George Macilwain*, Surgeon to the Finsbury Dispensary, &c. Octavo, pp. 83.

THE uncertain and highly unsatisfactory results which have heretofore attended the management of cutaneous diseases in general, though conducted with the most scrupulous adherence to the dominant pathology of the day, in relation to this special department of the practice of medicine, have impressed upon the profession at large the urgent necessity which exists for a narrow and rigid examination of the validity of those principles and views, which have directed the treatment of a class of affections composing so large a portion of those commonly met with in private, and more particularly in dispensary practice.

The author of the little volume which forms the subject of the present notice is already not unfavourably known to his professional brethren, in connexion with other productions of his pen, which have been briefly reviewed in this Journal.* Before proceeding to submit to the reader an analysis of this last, but not least important of Mr. Macilwain's publications, we deem it advisable to advert to the appointment which he holds, as Surgeon to the Finsbury Dispensary, in which capacity ample opportunities we conceive, must have been afforded him for submitting to the touchstone-test of experience the comparative value and success attendant on the various modes of treatment recommended in the works of British and Continental authors, who have treated systematically of diseases of the skin.

The Finsbury Dispensary, "as large as any, if not the largest in the Metropolis" (p. 21,) over which our author presides, relieves about five thousand patients annually. These, in general, belong to the lowest classes of the dirty and ill-fed poor, and may be supposed to be by no means very favourable subjects for promoting the success of any remedial measures. It would nevertheless appear, that the modified constitutional plan of treatment

* Vide Medico-Chirurgical Review for July, 1827.

has, in the practice of Mr. Macilwain, proved eminently successful in curing a tribe of skin diseases, hitherto in the experience of many practitioners, regarded as perhaps the most obstinate and unmanageable of any; we allude to scald-head, tinea, ring-worm of the scalp, or by whatever other epithet the various forms of porrigo may be styled. We are confident that the views and treatment entertained and recommended in Mr. Macilwain's little volume will receive, as they merit, the attention of many classes of the profession.

In a temperately-written preface, our author advocates the importance of those views promulgated by the late Mr. Abernethy—"on the Constitutional Origin of Local Diseases." He thinks, and many of the present day may no doubt concur with him, that these views have not yet received an application commensurate with their claims. Many modifications of Mr. Abernethy's principles, as applied to the relief of individual diseases, probably yet remain to be discovered. The reader is next apprised by our author, that he has good reasons for entertaining the assurance, that the great surgeon was not aware of the example now afforded, of the influence and value of his views when applied to the treatment of porrigo in its various forms; and which, "in the absence of yet less matured illustrations," he at present submits to the profession. But we must hasten, without farther preamble, and present a summary of the contents of the treatise under consideration.

Skin diseases, being generally more or less complicated with some kind of constitutional disturbance, *à priôri* we might be led to anticipate that, in proportion as the pre-existing or consequential disturbance was great, or comparatively trifling—the local disease in the one case would be less, just as, in the other, it would be more, amenable to the influence of remedial measures. Mr. Macilwain's experience has informed him that the state of the fact is widely different, and that a result apparently so contrary to all rational anticipation appears to admit of the following explanation:—

In some diseases the formidable nature of the general disturbance not only compels us to direct our attention to it, but often with an anxiety which renders us absolutely regardless of circumstances of minor import; as happens in acute forms of the Exanthemata.—Other diseases are too manifestly accompanied by a bad state of health to allow of their connexion with it to be overlooked or mistaken; a third set are so obstinate, so pertinaciously annoying, and are attended with so little local alteration, that this disproportion alone suggests the possible influence of a cause not to be discovered in the seat of its local manifestation. These circumstances (and as it appears to me, very much in the way here represented) have led physicians and surgeons already to treat the majority of cutaneous diseases by means directed to the improvement of the general health.*

There are however still, cutaneous affections in which the disturbance is neither formidable, alarming, nor very plainly developed, and in which its very existence, because often unattended by any very obvious indication, is overlooked and merged in the contemplation of the more prominently troublesome and disgusting peculiarities of their local characters, and wherein the treatment has been confined to the removal of these, regardless of the constitutional disturbance

* "The consideration of the whole of the diseases of the skin, strongly supports this view of the subject; as examples, I may refer to

The Exanthemata, Lichen, Strophulus, Prurigo, which are in the order which I have placed their illustrations of these observations."

on which they depend. This is strongly exemplified in the treatment usually pursued in the various forms of Porrigo, and the result is just what sounder views of disease must lead us to expect; viz.—that with the exception of specific malignant diseases, they are the most obstinate of all cutaneous affections.

This appears to me to be a brief but true account of the state of the practice with regard to Porrigo; and I can only say, that if it be in any sense an overdrawn picture, it has not been occasioned by supineness on my part, in endeavouring to ascertain the real state of the case." 8.

It would be premature on our part either to assent or disagree with the tenour or bearing of these remarks, until we see their application, as enforced in connexion with the modified plan of treatment recommended by Mr. Macilwain, who confidently assures his readers, that if afforded a fair trial, the result will be such as not to create disappointment.

In the second chapter, we find some observations of a less general nature, on the "local characters and constitutional origin of porrigo," the various forms of which, known by the names of scald-head, tinea capitis, ring-worm, &c. may, from their local characters, be considered as "inflammations of certain portions of the skin, terminating in the formation of pustules."

Willan and Bateman, who, as most no doubt are aware, were guided in their classifications of diseases of the skin by the external or local characters, presented by this class of affections, very properly referred the different species of porrigo to the order "pustulæ," in their systematic arrangements. Some more recent authors have objected to porrigo *decalvans* being classed with the genus porrigo, from its never being attended with the formation of pustules. Mr. Macilwain, at pages 10, 25, and 26, ranges himself with those who have joined issue against the learned Bateman's questionable judgment on this point. Our author nevertheless, while urging the impropriety of such an alliance, for the reason just mentioned, does not regard the arrangement as disadvantageous or objectionable, when the state of the constitution is attended to, by which diseases of this kind are generally accompanied.

In a practical point of view, since nosologic distinctions in any class of diseases are often very unimportant, and, with reference to those designated by the common term "porrigo," mere nominal distinctions may be disregarded altogether; forasmuch as, all of them are easily relieved by treatment conducted on a common principle; though of course differing in its details. The grand principles here referred to are—regulating the digestive organs by a particular diet; and by the use of medicines, directed to ensure a healthy condition of the various secretions.

To revert, however, to the infinite diversity of forms and appearances which porrigo may assume, the practitioner need scarcely be reminded that skin diseases, no more than others, must be expected to tally to a nicety, with delineations in highly finished plates. Thus, affections forming the subject of Mr. Macilwain's treatise are usually presented in dispensary practice, or in the dwellings of the poor, "obscured by vast quantities of matted hair mixed with considerable incrustation, the offensive accumulation of several days, weeks, or even in some cases, months. The removal of all this discovers a red shining portion of inflamed skin, on which are seen numerous groups of small points which are to be considered as new pustules. When the disease is in progress of cure, these points are no longer observ-

able. If, on the contrary, the disease is to continue, the pustules enlarge, become more or less confluent, and form incrustations which, on being thrown off or removed, again discover other pustules proceeding in the same manner." Ample details of the successive appearances of these common affections are given in the works of Willan, Bateman and Alibert.

We come however to that part of Mr. Macilwain's work, where he states, that so far as he has been able to learn, these affections have by others been treated almost entirely by local applications. He does not deny that aperients may have "occasionally" been administered, nor that dietetic cautions have been offered; but he contends, so far as his observations have gone, "no systematic attempt to regulate the diet has hitherto attended the practice." Cleanliness and local applications, though not unimportant, are yet merely subsidiary, in cases of obstinacy. Dr. Bateman, as is pretty well known, recommended tonics and particular diet in "particular cases;" yet, he is not regarded as worthy of being named an exception to the truth of the remark made. We may be allowed however to observe, that M. Alibert, so far back as 1798, or early in the current century, in the letter-press accompanying his highly finished delineations of forms of tinea, witnessed by him in St. Louis' Hospital, dwells at considerable length on the great want of success, from any treatment exclusively local; and prides himself, (as he rarely fails to do, when an opportunity is afforded,) in first seeing and urging the necessity of attending to age, temperament, season of the year, diet, together with close attention to the general health of patients, &c. This reference is offered only by the way, for we by no means disagree with our author, when he asserts that no writer before him had inculcated diet as among the chief, if not the chief point, to be systematically attended to, in treating porrigo.

Prosecuting our perusal and analysis, we find M. Alibert's opinions and experience, quite opposed by that of Mr. Macilwain, as to the contagious nature of porrigo. Most of our readers may be aware of the *outré* opinions and the still stranger practice broached and resorted to by Alibert and others of the French school, from regarding tinea and skin diseases generally in the light rather of conservative efforts and salutary crises of Nature, than diseases properly so called. When such was M. Alibert's creed, we need not express any surprise that in accordance with *his* philosophic views, he should have sought to profit by the interpreted hint thus afforded; and endeavoured, in many diseases, to excite artificially some skin affection, so as to *localise* the effects of constitutional disturbance; the tendency of which, if allowed to run its injurious course, must, *ex necessitate*, prove infinitely more injurious than a local disease. We actually find that children labouring under enteritic affections were *inoculated* with the mucus and purulent matter of scald head! This monomania for inoculation was indulged upon a liberal scale; yet the results of the operation, though practised with anxious attention, failed again and again, nay, oftener failed than succeeded in producing a skin disease in the punctured locality, as looked, and devoutly wished, for, by M. Alibert! Now, it was this general want of success in artificially exciting tinea, that led the "skin" physician of the Hospital of St. Louis to consider as very questionable, if not utterly to be set aside as untenable, the opinions of the contagious or infectious nature of the disease. We have considered it a duty to advert, however cursorily, to

the opinions of one of the great French authorities on this question, which is any thing surely but of minor importance, when we bear in mind how much the business of education and the interests of boarding-school teachers are interfered with the instant a well-marked case of porrigo appears among the pupils. Much conflicting opinion has been originated, we have good reason to know, owing to ring-worm or tinea capitis being held by one medical party, consulted for the interests of the teacher, as not communicable by contact or social intercourse; while again the opposite opinion has been given on behalf of the parents and children by their medical referee. The profession will again and again be consulted on such occasions as they have already been. Looking not at exceptions, but at the broad general facts relating to the extension of porriginous diseases among the members of private families and boarding-houses, we do not think the slightest doubts can be entertained of such diseases being generally, if not uniformly, communicable by contact with those already affected. We leave this somewhat disputed topic with a pertinent extract of special and general import from the work before us, the bearings of which are sufficiently comprehensive.

"If there be any one thing clear about the often-discussed subject of infection and contagion, it is, that there is a certain condition of the system favourable to the acceptance of the contagion. On no other grounds than this admission can the various phenomena connected with this extensive subject admit of explanation; and it is no argument in support of a denial of this condition, to say that we are ignorant of any mode by which it can be discovered. Its existence is proved by the consideration of the facts presented both by those who receive, and by those who resist contagion. Indeed, were we to conclude that diseases were local because they occurred in individuals exposed to contagion, who were otherwise *apparently* healthy, I conceive that we could scarcely adopt an hypothesis more at variance with facts almost daily presented to us, or leading to more untenable or mischievous conclusions." 17.

From the extract just given, it will likewise be seen, that Mr. Macilwain disagrees with Dr. Bateman's remark, of porrigo being sometimes a purely local disease. The solitary fact of children, otherwise apparently in the enjoyment of good health, receiving the disease by contagion, assuredly is a premise, not sufficiently satisfactory, from which to deduce, as Bateman has done, such a summary conclusion.

Constitutional disturbance is not always equally palpable to the senses of experienced practitioners; and local diseases which ordinarily afford but obscure indications of the sources whence they spring, at other times most "glaringly expose to us, a fact in their character, which, under less formidable circumstances, had escaped our penetration" (*p.* 15.) This is a fact, which the experience of every-day practice must have inculcated on the attention of most of our profession. Diseases ushered in by obscure or inappreciable indications of general disorder often, subsequently, have their connexion with constitutional disturbance sufficiently attested; and no sooner has local irritation, or disease, been developed, than the previous general tumult has subsided. Knowledge of this induced the old practitioners, of the observant class, to dread "repulsion of the humours," as their pathology led them to express themselves. In all cases of *ulcered* legs, every day presented at our public charities, Mr. Macilwain never has failed to connect such diseases

with constitutional cachexy; and appeals to the experience of his brethren for corroboration of his remarks, that there are innumerable states of the system very remote from health, which yet present "no one of the signs by which we usually recognize disorders." Moreover, that cases are constantly occurring, where consequences excited by local causes admit of no explanation from "the extent or severity of the local injury." It is his firm opinion, that in every case of *spontaneous* local disease, there exists, more or less, derangement of the digestive organs; though he does not think them, "in all cases," *primarily* affected. The *fons et origo mali* often is in the nervous system, with the derangements of which, the digestive organs do not always, but most generally, sympathise. Hence the necessity for merging the treatment of both of these classes of cases into one—the guiding principle being the same—namely, to preserve, or restore, the tranquillity of the nervous system; care being taken, to use Mr. Abernethy's expression, that the nervous system receive no additional disturbance from those organs which are so wont to disturb it, viz. "the chylopoietic viscera." We cannot follow our author into some lengthy digressory remarks, for which however he apologises; but take him up where he seeks to undeceive those who may have too hastily, or inconsiderately adopted Bateman's opinion of the occasionally exclusive local nature of porrigo.

Though children apparently quite healthy receive it by contagion, that admission does not prove its local character; nor is there any necessity to flee to other reasonings or analogy for its explanation, "in the vast majority of cases" the constitutional disturbance not being so masked as to require it. Even where there was less notable constitutional disturbance, and where the local irritation consequent on extreme neglect seemed sufficient to keep up disease—in vain, his dispensary experience told him, was purely local treatment had recourse to. The indications of disturbed health appear to have been very various;

"But furred, vascular, or otherwise unhealthy tongue; costive, or purged bowels; deficient or voracious appetite; fitful or fidgety state of the nervous system, rendering the patients fractious or unmanageable; slimy, gelatinous, discoloured or otherwise disordered secretions from the bowels; one or more of these several conditions in various combination has been present. Many children have been presented in that peculiar state of unhealthy repletion consequent on protracted lactation, so prolific a source of disease amongst the children of the poor in this metropolis. Some patients have had the abdomen *tumid*, and other marks of mesenteric affection. In fact I have seen but very few who have not presented some indication of disordered health which was far from equivocal. And with regard to those few in whom these indications have been less marked, I can only say that if a child got rapidly well of a troublesome and loathsome disease in less than one-fourth of the time usually required for its removal by a treatment directed to tranquillize the functions of the digestive organs, I should be just as satisfied that it depended on a disturbed condition of these organs, as if the tongue had been ever so furred, or there had been present all the usual symptoms of alimentary or chylopoietic disorder." 23.

Of the reciprocity of sympathy subsisting between the skin and alimentary mucous membrane, many illustrations are hinted at. Mr. Macilwain thinks counter-irritation of the digestive canal is seldom required, "and still more rarely advisable," in conducting the management of diseases of the skin. We have a statement submitted of the success, and the period of time

required, attending the dietetic treatment recommended by Mr. Macilwain, from his experience in the Finsbury Dispensary. We only cursorily notice this here, as we mean, towards the close of this article, to contrast the success and duration of time patients were under treatment, with Alibert's experience, in the Hospital of St. Louis. The contrast is striking, and bespeaks strongly the superiority of Mr. Macilwain's plan.

We have next to consider the author's chapter of opinions, as to the prime importance of diet. We think that amplification beyond what was necessary, or even to be expected, has here been indulged in by the author. The whole chapter may be regarded as in a great measure a special commentary on the doctrines of Abernethy.

The powers of the stomach must be ascertained. The food must be proportioned as to quantity, to suit the powers of the stomach. Further, lest there should be imperfect assimilation of the food allowed, choice should be made of that which shall prove least hurtful, in the event of being imperfectly assimilated. The state of appetite is confessedly but an uncertain criterion by which to judge, in all cases, what quantity of food should be allowed. Yet the degree of appetite Mr. M. thinks may be depended on "more generally than is supposed, *provided* that we give the nerves of the stomach a fair chance of exercising their healthy functions, and do not subject them to the misleading influence of unnecessary stimulation."—(p. 30.) Inordinate appetite may more frequently be the result of direct stimulation than disease. Mr. Macilwain illustrates this position by alluding to variety of dishes at table, provoking false appetite by mere change of flavour. "Acid, saccharine, and saline substances are well known to be powerful exerters of appetite," says our author; but we may be pardoned expressing our hesitation to accede to this, without some limitation. We cannot admit "saccharine substances" to be among the number of accredited *whetters* of the appetite. By pleasing the *palate*, we grant a multitude of dainties, such as sweetmeats and confectionary, are transferred from the dessert table to the stomach; yet we cannot allow that such habits of gorging as are practised among the children of the opulent, much more than among those of the indigent classes, are to be ascribed to the fresh cravings of *appetite*. How frequently do we not find the oversight, if we may not call it error, committed, of mistaking and confounding caprices, referable to the palate only, for defective or otherwise morbidly-increased appetite! Many adults of both sexes not only can, but *will* to, eat their meals regularly, whether they feel appetized or not. On more occasions than one have we had this sufficient explanation given by such gourmandish individuals, that they ate merely because they supposed "the tabernacle" required being supported: and though this soup and that pastry might perhaps offend their stomach, nevertheless the *palate* relished the variety! But to keep close to our author:—

To avoid repletion from variety of dishes, the use of more than a single article of food is interdicted, during the course of any one repast. Everything stimulant being withheld, using the epithet in its widest dietetic sense. Circumstances, not rules, must determine the quantity of aliment taken at one meal; and during twenty-four hours. If these rules be borne in mind, errors from overhasty generalization will be avoided.

"No man can entertain a more profound respect than myself, for the opinions

of Mr. Abernethy, nor more sincerely feel that he has been very largely a benefactor of mankind. Yet I humbly conceive, that the application of his principles, as taught by himself, is not wholly free from the effects of too hasty a generalization. His general rules, I believe to be the very best with which we are acquainted; but I scarcely think that they make sufficient allowance for the exceptions which are met with in practice; and that therefore they are calculated (when too literally or indiscriminately followed) to limit the operation, and consequently to abridge the utility of his own principles." 34.

If repletion be improper, to permit prolonged hunger is no less material an error. Mr. Macilwain's opinions and their applications to practice, though not new, are extremely judicious on this highly important topic.

"Persons who are unnecessarily restricted, become, under the teazing influence of continued appetite, fidgety and uncomfortable. They are impatient and discontented, and influenced by a state of mind exceedingly unfavourable to a healthy condition of body. I must here not be misunderstood: many persons when first subjected to restrictions in diet, will complain of hunger when they have eaten the portion allotted to them, and in half an hour the sensation shall cease. This is not the case to which I refer; as this is morbid sensation, the result of bad habit. It is the continued hunger consequent on an insufficient allowance, which I allude to, as productive of injurious impressions on the nervous system. There are cases truly, in which this plan is necessary, but they are foreign to the present subject. It should be remembered, therefore, that whilst above all things it is necessary to avoid putting more food into the stomach than it can digest, yet it is by no means unimportant to give the organ as much as its powers unassisted by stimulation are fully equal to perform. Now no method with which I am acquainted, is better for this purpose, than first determining how much food we consider necessary for the day's consumption." 36.

Small portions of aliment are recommended at intervals of two, three, four, or six hours, according to circumstances. The periods may cautiously be lengthened; at the same time increasing the quantity till the meals are taken with ordinary frequency, say three times a day, in adults; four times a day for children. Unassimilated food may often be detected by examining the fæces, when otherwise we might search in vain for decisive evidence of indigestion. Imperfect assimilation in other cases may be evidenced by a loaded condition of urine. As we mentioned already, that kind of food should be selected, which, if undigested, shall prove least injurious. Our author prefers vegetable aliment; but we do not altogether clearly see the cogency of his reasons assigned for such preference; viz. that as vegetable aliment ordinarily requires a longer time than animal matters, for the first stages of decomposition, whilst its known tendency to excite the bowels would lead to its more speedy discharge, a consideration of these respective properties should lead us to direct animal food to be avoided, where we have reason to dread the occurrence of chemical changes to which food is exposed, when the organs of digestion and assimilation are in a low state of vitality. Now we do think, if such reasons hold good as applicable to the treatment of porrigo, which we here do not presume to call in question, yet, that granting as much, the case of porrigo is the exception, and not the rule. In no disease ought we to forget that the existing condition of the stomach and viscera, *for the time being*, influences the more or less healthy changes consequent on food being received into the alimentary canal.

To continue the present analysis: Mr. Macilwain then thinks the presence of undigested *farinaceous* aliment occasions less disturbance, and is preferable therefore to animal food. He hazards some observations from which it would seem that he is extremely sceptical; or even broadly denies, that the food undergoes that change in the stomach which the most orthodox of all physiologists have hitherto recognized by the word "chymification!" To avoid error, or unintentional injustice, on our part, towards Mr. Macilwain, we quote, ad longum, his *ipsissima verba.*

"It has been said that the first change which takes place in the food is its conversion into a homogeneous mass, which has been called chyme; but I much doubt whether any such process takes place, and believe this impression must originally have arisen from the observance of farinaceous food, which, when comminuted, and thus exposed to warmth and moisture, certainly presents very much the appearance represented to characterize chyme: no investigation which has been instituted has enabled me to discover any such process. I have opened a great many animals from time to time which had taken food at different periods before death; and many of which had been fed expressly for purposes of investigation after death, but in none did I ever see any thing like the chyme, as it is called. In those fed on purpose, the appearance presented by the meat was, that the surface next the stomach was in a soft gelatinous condition, just such as we might imagine would precede its complete solution, but the remaining portion was just as plainly beef or mutton as it would have been under any other circumstances, making due allowance for its being somewhat obscured by comminition, and the peculiar sort of mawkishly-acid odour of the secretions of the organ. So far as my recollection serves me, the researches of Dr. W. Philip concur in these results. It does not follow that the mode of digestion should be precisely the same in the human stomach: but it is in the highest degree probable that when we find no great difference in structure, there will be a great similarity in function—and therefore that in all animals with membraneous stomachs, the process of digestion is essentially the same. It seldom happens that we have an opportunity of examining the human stomach under circumstances which warrant any decided conclusion, but I could never see in the examination of bodies (and I have probably had a fair share of experience in this way,) the contents of the stomach representing such an appearance as that usually described under the term chyme. There seems then every reason for concluding that food when undigested in the stomach, retains for a time at least its characteristic properties, and that the idea of its becoming ameneble to chemical agency is therefore at least probable." 41.

We beg to leave our readers to draw their own conclusions.

Undue supply of animal food is proverbially a fruitful source of bad health during childhood; a diet, therefore, which is improper in health, cannot but be injurious during disease. In all classes of cutaneous diseases to which childhood is liable, our author judges vegetable food to be that which, cæteris paribus, should form the greater proportion of the diet; and when porrigo is the form of affection, no diet is more suitable or more required than the *farinaceous.* Nevertheless, Mr. Macilwain does not restrict the diet absolutely to what is strictly considered farinaceous—milk, yolks of eggs, bread of different kinds, sago, arrow-root, tapioca, and even "plain puddings," may be conjoined. From such a list as that, we should regard the parent or child indeed difficult to please if the bill of allowed fare were complained of, as not sufficiently ample to give scope to taste or fancy being gratified in the way of selection!

The habit, among some of the better classes, of having their children

brought in after dinner to partake of the dessert, is undoubtedly of mischievous tendency. Mr. Macilwain has not exaggerated the bad consequences of such very mistaken kindness. More especially is this practice reprehensible,

"When children have been deprived of this indulgence for a short time, during the more troublesome period of some trifling indisposition, as the milder cases of Porrigo are considered. I need hardly add, that on these occasions, whatever is put into the stomach is to be regarded as trash presented to the organ, when it neither requires nor is prepared for food. All this may perhaps be very natural, and that for which in perfect health good-nature may find excuses; but whilst there is any disorder, surely nothing can be more mischievous, or when forbidden, more inexcusable." 45.

Our author is most particular in urging the strictest observance of his directions as to diet. If these cannot be complied with or are disregarded, "I would never," says he, "continue my advice; for the profession is too often brought into discredit by holding nominally the charge of a case of which it really has only the responsibility."

The potatoe diet of the poor agrees well with children, provided these esculent roots be well-boiled, and be *mealy*.

We see matter for congratulation throughout the profession, that cases of porrigo among the poor are not any of those diseases in which the diet that is necessary cannot be adhered to, if made use of at all, owing to the pecuniary or other circumstances of the sufferers. It would appear that further suggestion as to diet is unnecessary, saving only that the poor should be cautioned against dangers from repletion. We think, if so much as Mr. Macilwain says of his success depended on the scrupulous adherence to farinaceous diet, modified of course, according to the exigencies of individual cases, that practitioners who adopt his suggestions will find few cases intractable in their hands. Is there no hygienic influence to be attributed to the farinaceous diet adopted, not from choice but stern necessity, by our Irish and other poor? As far as the reviewer's experience goes, perhaps severer cases of porrigo, characterized too by greater obstinacy, are oftener met with among a given number of the better classes of society than among a proportionate number of the working and industrious poor. (?) Our object however being to keep as closely as possible to the contents of the treatise under notice, we must be sparing of comment, as this article threatens very far to exceed the limits which many circumstances remind us of the expediency to avoid. So much for food. As to the drink recommended, we have —toast and water, barley and water, or plain water.

Plans however excellent in the abstract, often require being introduced only by degrees; and it is not always correct or safe to treat disordered stomachs in accordance with methods suggested by considerations drawn from the same organ when healthy. Thirst should be satisfied as in the case of hunger, that is, before it becomes urgent; but its first requests should be disregarded. Some of Mr. M.'s patients have been the children of medical men; their cases evinced frequently the usual obstinacy of the disease, although to all appearance under a judicious course of medicine: but "when subjected to a milder farinaceous diet" yield readily like others. Although diet be the chief part, yet it is a part only of the treatment; disordered secretions must be corrected; sluggish, irritable bowels, excited or regulated.

The consideration of these points brings us to Chapter IV. which is devoted to the *medical* treatment.

If too much food be bad, too much medicine is worse. Medicine taken into the system cannot be followed with negative results: harm must be done if none of the intended benefit be achieved for which drugs are administered. The treatment in all cases should be "commenced by a gentle but efficient evacuation of the bowels."—(p. 54.) Reports of nurses and others should not be trusted to. Small doses of aperient medicine should be given every three or four hours on the Abernethian plan, by which the fæcal contents of the canal will more certainly and effectively be dislodged and discharged, than from the exhibition of large doses which give rise to watery secretions "constituting in many cases an injurious depletion." Almost all medical men, are, we think, sufficiently aware of the superior value of reiterated small doses of aperients to full doses of drastic cathartics, in cases where there has been a teazing occasional diarrhœa, and unsatisfactory stools responding to larger doses of medicine. Cases of protracted dyspepsia are sufficiently common; and every one of our standard authors on the medical management of these diseases have bestowed such pains in detailing the best mode of treatment that we cannot but think it unnecessary for any author now-a-days to do more than refer to such works; more particularly as they have a place allotted them in every medical man's library. The cases therefore detailed from pp. 55 to 59, of the man who died after his limb was amputated, and in whose intestines "scybalæ as if of a calculous nature" were found impacted, and the amply detailed case of the ophthalmiæ'd patient, present no interest beyond what their exemplification affords of a principle in the management of constipation, now an exhausted subject, in this point of view.

For gradually and gently soliciting the action of the bowels in the cutaneous diseases of children, our author gives calomel, half a grain; rhubarb, five grains; and of ginger, three, at proper intervals. A solution of manna in warm water, with a little aromatic tincture, has also proved serviceable. Castor oil must not be omitted from the list of useful medicines. Aperients may require being varied. Should rhubarb fail, jalap may be substituted. Compound scammony powder, even aloes and soap act in some cases (we cannot tell why) more efficiently and comfortably than milder means employed.

It is of importance to ascertain what organ is at fault, directing attention to its due regulation. Should it prove obstinate it must be attacked through the medium of other organs with which it sympathises. What are called 'alteratives,' are generally chosen to correct the secretions, when depraved. A repetition of the rhubarb, calomel, and ginger every second or third night is generally sufficient, if the diet be strictly attended to. "Some few patients do very well without any medicine at all." Cases often occured wherein the stomach had to be interfered with *medically*. The subsidence of voracious appetite has frequently been expedited by small doses of ipecacuanha and antimony; the hippo rarely causing sickness, if the bowels have been frequently evacuated. The secretions of the liver and ducts, upon the whole, seemed to be best managed by hydrarg, cum cretâ. When the dejections indicate paucity of bile, if considerable secretions can be procured, benefit will result, for which purpose calomel and jalap, or calomel with

aloes, every three or four hours, are recommended. Rhubarb seems sometimes to occasion pain by the slowness of its operation; the addition of a grain of ipecacuanha, or two or three grains of jalap will generally secure its efficient and comfortable action. If slime, mucus, or jelly pass with the stools, there is nothing better than warm water enemata; three quarters of a pint may be injected every night, or night and morning. In strumous constitutions, frictions of the abdomen: in some mesenteric affections Mr. Macilwain speaks of success from the pustular eruption ("artificial porrigo as I have sometimes termed it") consequent on antimonial inunction. In adults the state of biliary secretion may be such as to require small doses of mercury. Yet idiosyncrasy may contraindicate its employment. Good fresh extract of colocynth with dilute nitric acid, forms the best substitutes in the experience of our author. For the detail of much that may be by some regarded as elementary truisms, the usual obstinacy of porrigo, and the success of our author's practice are urged in mitigation of criticism.

From the summary which we have given of the contents of the first four chapters, the reader will have correctly anticipated, that but few pages (11) are devoted by Mr. Macilwain to the *local treatment* of porrigo; with an analysis of the last chapter we shall close this already too extended notice.

Local treatment is not "a thing of no consequence," though little importance is to be attached to the all but innumerable list of topical remedies. Irritation, mechanical or chemical, must be avoided. Whatever has a tendency to confine the discharge must be obviated. The local treatment should be conducted thus:—Before the razor can be used, a large bread and water poultice (without lard or greasy matter) should be applied to the head. An other should follow before the first shall have dried. In this way, incrustations will be removed. Plucking the hair where it is matted together may be, and often is, preferable to shaving such spots, owing to the tenderness of surface. Head must be closely shaved; cases no doubt exist, where this operation of the barber gives rise to much irritation, yet the irritation consequent on shaving less retards recovery than the greater irritation consequent on the growth of hair, if allowed to shoot up beyond the cranial surface. Shaving should be cautiously conducted. The scalp should next be washed with soap and water, till every particle of discharge be removed; then clean tepid water, if liberally used, will remove any soap, after which the surface should be "patted (not rubbed) with soft linen until perfectly dry" (p. 80.) The head should be shaved, say twice a week. *Any* unctuous, slightly stimulating ointment, previously softened by warmth, may be lightly "painted" on the surface by means of a suitable camel-hair brush. The dressings should be repeated once every twenty-four hours, should the discharge not be profuse—night or morning in the latter case, carefully cleansing the surface of the ointment previously employed. Spermaceti ointment is a good general application; but unguentum hydrarg. nitratis, variously diluted, is preferable. Mr. Macilwain begins with a drachm, diluted with an ounce of lard, the strength to be gradually increased. Disposition to local amendment will, however, generally be seen to be in accordance with improvement of the general health. Of sedative, stimulant, or astringent lotions our author has little experience. In conclusion, he observes that—

"The local treatment is simple, yet that each part of it should be carefully

executed, regardless of the trouble it requires. The head should be covered with a clean linen cap, and the usual caution of separate beds, towels, basins, &c. observed, to prevent the communication of the disease to other children.

Exercise and pure air, as tending to improve the general health, are no doubt good additions to the plan which I have recommended;—but the obstacles in the way of forming any opinion on the effect of advice directed to the attainment of these objects in a crowded metropolis, put it out of my power to speak from experience with regard to them." 83.

We have perused Mr. Macilwain's treatise most carefully, and have given a fair analysis of its contents. After glancing at the title page, &c. we were led to form no expectations which have not been realized. The purpose of this little work being avowedly practical, we were not disappointed at finding the author silent as to his experience (if any) of the truth of the occasional influence exerted by some forms of porrigo in retarding, or otherwise modifying, the development of the sexual organs. Cases mentioned by M. Alibert are curious and interesting to the physiologist, but we must content ourselves with merely alluding to them here. Mr. Macilwain is also silent as to the periods of life between which the greatest number of children are afflicted with any of the many forms of porrigo. The assigned interval, from the 2d to the 7th year, we believe, on the whole, to be correct—assuredly it is so far as tinea is concerned. It is gratifying to learn from Mr. Macilwain, that the ordinary duration, under his modified and improved mode of treatment, was so limited and steady, "not more than six weeks" being the average—and some were cured much within that period. Other cases, more obstinate, such as porrigo *decalvans*, "if, indeed, it is to be regarded as porrigo at all" (p. 25,) took a longer time for its cure. The superiority of the author's plan must appear conspicuous, when we contrast the regularity and permanance of his success with the results of Alibert's vast experience in the management of the same diseases. Mr. Macilwain, we think, has not done himself justice, in refraining from submitting a table of comparisons, odious though *abuse* in this way proverbially is. We shall, therefore, do it for him by simple statement.

When remarking upon the want of success attendant on the use of *any external applications*, particularly from that savage custom of treating tinea, by clapping a pitch plaster upon the head, and, after securing its adhesion, tearing it off *vi et armis*, accompanied with layers of incrusted matter, and even denuding the bones of the cranium:—from this Mohawk-*scalping* system, and other local treatment, Alibert admits that some were three years!!! a great many twelve months!! and all commonly six months under treatment. After all, relief was any thing but permanent, *rechutes* and *recidives*, (relapses and recurrences,) and "more serious maladies," frequently ensued. Need we wonder at the French monographists, under the influence of such obvious suggestions, as failure inculcated, seeking to impress upon their readers the importance of attention to the general health—regulation of the secretions—and a sparing application of local means? No local treatment can be uniformly applicable, nor can any routine system be rational, for the obvious reason, that every form of skin disease has, more or less an inherent tendency to run through its stages of manifestation, acmé, and decadence.

Before dropping the pen, we must beg Mr. Macilwain, if a second edition

afford the opportunity we trust awaits him, to recast the expression of some sentences in his book, which, in their present state of *syntax*, have occasioned us to rub our eyes and reconstrue them more than once, without a satisfactory comprehension of their meaning rewarding us for our pains. In the table of contents, we find this somewhat glaring inconsistency—"the history of cutaneous affections shews them, for the most part, to be *tractable* in nearly the same proportion as they are unconstitutionally treated." (!?) Indeed! are we to understand that skin diseases, if *im*properly treated, are proportionally *curable*? Again, at page 19—"when I use the term general *health* and *derangement* of the *chylopoietic* viscera, I would not be understood as *always* using them *synonimously*." Really we hope not; and begging our author's pardon, we think no student runs much risk, if he be in his senses, of misunderstanding *health* and *disease* so far as to regard them as *synonimous* or convertible terms. These trifling and self-rectifying imperfections must, however, be overlooked, and merged in the merits of the publication as a whole, though a more finished style was certainly to have been looked for, from an author who has been already oftener than once before the public. We should consider ourselves as wanting in candour did we fail to recommend this little treatise; we can conscientiously applaud its purpose, and vouch for its useful tendency.

## VII.

**TRANSACTIONS OF THE MEDICAL AND PHYSICAL SOCIETY OF CALCUTTA. Vol. VI., pp. 509. Calcutta, 1833. Parbury and Allen, London, November, 1833.**

THE arts as well as the sciences, are progressing on the banks of the Ganges. Those who remember the specimens of typography which the Calcutta and Madras press sent forth 30 years ago, will be astonished at beholding the sixth volume of the Transactions, now before us—a volume that would be no discredit to some of the best STEAMERS that facilitate the march of intellect in this great Metropolis! The medical sciences, too, are evidently keeping pace with the arts throughout our vast Asiatic Empire, as the contributions to these volumes, from various provinces of that wide-spread country, abundantly prove. The members of the Medical and Physical Society of Calcutta are now, we imagine, more numerous than those of any medical society of Europe—or at least of the mother country. The present volume contains twenty-five papers, and an appendix in small type, presenting 30 additional articles—so that there is here a very great variety of information—much of interesting import even to the members of the profession in these western regions. Our intercourse with the East, which will now be greater than ever, demands from us a notice of these volumes as they issue from the press, and we shall accordingly proceed to our task.

## I. ON THE CLIMATE OF BANGALORE, AND THE PREVALENCE OF HEPATITIS AT THAT STATION. By *J. Mouat*, M.D.

Previously to the establishment of a salutarium in the Nilgherries, Bangalore was considered the Montpellier of Madras—and it still maintains its character, though a drawback on its good name appears in the sequel of this paper. In January, the thermometer ranges from 62° to 71°—in April, from 75° to 87°—in July, from 69° to 79°, weather cool and sun generally obscured—in December, "the air very cold, elastic, and bracing—the sky cloudless—wind strong from the North and North-east—thermometer from 68° to 72°, very few sick."

Bangalore is a table-land, nearly 3000 feet above the level of the sea, enclosed by the Eastern and Western Ghauts, and its climate is comparatively cool. The aspect is generally barren and jungly.

The air is always elastic, and generally pleasant, even in the hot season; and during the monsoons moist, but not relaxing or disagreeable, though at times cool and chilly. Too much can scarcely be said in praise of the climate of Bangalore: it is truly excellent, and convalescence most rapid even from acute disease; neither does it seem to predispose to phthisis,* hooping-cough, or croup, nor to retard the recovery of those affected with syphilis, or occasion intermittents. In the jungles, and at Seringapatam, remittent fevers are prevalent, but these arise from local causes. The coolness may not prove favourable to asthmatic subjects, or delicate persons, who are easily affected by changes of temperature and so rarefied an atmosphere; or those who are labouring under organic deranged structure, and certain idiosyncrasies of constitution; but to all others, it must be a delightful and happy change from the heat of the Carnatic, or the relaxing effects of Malabar, and of most other Indian stations." 11.

It was not to be expected that, in such a climate, hepatitis would have been very prevalent—yet such is the case, and it is attributed by the author of the paper to exposure to the sun and intemperance. Dysenteries, fevers, hepatic affections, and rheumatisms, were the prevailing acute diseases in the cool months. The following was the treatment employed in dysentery.

"DYSENTERY. This has been a highly acute affection, and treated as such, by copious and repeated venesections, leeches to the abdomen and the perinæum, large or scruple doses of calomel, often combined with ipecacuanha, and the latter sometimes by itself, or with gentian, or the blue pill. Frequent mild purgatives, especially the Ol. Ricini. Hot fomentations and the hip bath, emollient or ipecac. injections, blisters, &c." 23.

FEVERS. Few died of fevers at Bangalore, although they were fully as violent and frequent as dysentery. Out of 121 cases of fever, only two died. The treatment was strictly antiphlogistic.

HEPATITIS. Medical writers, among others Drs. Annesley and J. Johnson, have considered hepatitis as, in some respects, endemial in certain localities, owing probably to some peculiarity of the soil and the seasons. It is difficult, however, to account for the fact, that hepatitis is so frequent in Bangalore—a climate so much superior to many others in the peninsula of

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* "In nearly 13 years, only two men have died of consumption in the regiment."

India, where the disease is much less frequent. The annual mean temperature is 74° Fahr., a very low range for India. It is curious that, in Bangalore, hepatitis never affects children, nor natives, and very seldom females. This last circumstance our author thinks must upset the theory of high temperature being the cause of hepatitis. But it is to be recollected that women are less exposed than men to the general causes of diseases, and that it is not high temperature alone that causes hepatitis. Great heat predisposes the constitution to be acted on by cold, and it is to transitions of temperature, rather than to a very high or a very low range of it, that man owes most of his maladies, in India and in other climates.

## II. A SKETCH OF THE MEDICAL TOPOGRAPHY OF GOWHATTEE, WITH AN ACCOUNT OF THE PREVAILING DISEASES, &c. By *John Leslie*, Esq.

This is the capital of Assam, on the southern bank of the Burrampooter, and in the 26th parallel of N. Latitude, and about 500 miles from Calcutta. In consequence of the annual rise of the great river, two thirds of the ground is inundated in the wet season. The range of the thermometer is from 80 to 86, and the nights are generally cool.

"The peculiar manufacture of the opium deserves a few remarks. The white variety of poppy is most generally cultivated; it ripens in February, and the exudation from the wounded capsule is wiped off with a piece of old rag. This when saturated is rolled up and successive layers applied, until a mass be obtained of about a seer in weight. The opium in this state is called *kanee*, and to its use, or rather abuse, the Assamese are unfortunately exceedingly addicted. The drug is used in two modes, one method is by daily dipping a portion of the rag in water and drinking the solution; the other is, to strain and evaporate the solution, so as to obtain a pure extract of opium, which those who can afford it smoke. The latter mode is chiefly confined to the higher classes, and is similar to the practice of the Chinese." 39.

The population of Gowhattee is about sixty thousand. The diet of the poor is very meagre, consisting of rice, seasoned with a kind of alkaline salt or potash. Our author's experience was almost exclusively confined to the jail, a large building well situated on the banks of the river. The ordinary diseases are fevers, bowel-complaints, dropsy, ulcers, syphilis, and cutaneous affections. The following passage is deserving of notice.

"Fevers often usher in that intractable form of bowel complaint, from which so large a proportion of the mortality of this jail originates. This disease has its seat in the great intestines, and its approach is frequently overlooked; and emaciation to a considerable extent occurs before the patient applies for admission into hospital. In not a few cases, a patient admitted with ulcer is observed gradually to lose flesh and strength, without making any complaint except that he feels weak. On closer questioning, he will admit that his bowels are loose, though the dejections, in frequency, may not exceed twice a day. After a time, small clots of blood appear in the stools, which are of a light yellow or reddish colour, of thin pultaceous consistence, and very fœtid. In more acute cases, mucus and blood are discharged from the commencement of the illness, with straining and tenesmus, sense of heat, and sometimes soreness below the navel. Thirst and loss of appetite for food are attendant symptoms; the pulse is increased in frequency, and the skin is occasionally hot. At the commencement the tongue is coated; but as the disease advances, it becomes red and

smooth. Emaciation progresses, the symptoms become less acute, the pain perhaps entirely ceases, but the patient is evidently losing ground; the dejections continue frequent, and œdematous swellings in the hands and feet now occur. The discharge from the bowels continues yellowish, and of a creamy consistence, or perhaps becomes almost entirely a bloody liquid. In cases attended with much anasarca, the watery accumulations are frequently removed a short period before death, by numerous liquid stools; and the bodies in these cases exhibit a degree of emaciation I have never elsewhere met with." 52.

The post mortem appearances are somewhat puzzling. In several cases of speedy demise, "the lesion discovered was slight and recent—whilst in others of great standing, it has appeared difficult to understand how life could be supported under such extensive disorganizations." Emaciation is excessive—the small intestines are found pale and thin, and seldom vascular. The colon is unaltered externally; and its mucous membrane exhibits alterations varying from a slight inflammatory blush to deep ulcerations, or even gangrene. The rectum not unfrequently displayed a greater change of structure than the colon.

"Again, without much increased vascularity of the villous surface, the whole would be studded with numerous minute ulcerations, evidently of a chronic character: in others the villous coat would have a dark uniform purplish blush; the membrane thickened, irregular, and soft, and either in the colon or rectum, generally in both, there were some deep ulcers. In one instance the ulcer was found to have penetrated the peritoneal coat of the intestine: and lastly, both omentum and colon have been found gangrenous. In a single instance the mesocolon was found vesicular; but in no instance was disease of the mesenteric glands discovered. The liver, stomach, and spleen were generally healthy. Serum to a moderate extent was usually found in the abdominal cavity; in two instances, where it existed in considerable quantity, the surface of the spleen was found white and corrugated, like skin long steeped in hot water, or pickled tripe. In the anasarcous cases, several ounces of fluid were always found in the pericardium; the viscera in the thoracic cavity were generally healthy." 54.

It is indeed astonishing to what extent ulceration of the intestines will go in chronic cases, with little apparent disturbance of the constitution. The stools will often be for days and weeks, apparently—really healthy, where numerous ulcers exist in the colon and about the ileo-cœcal valve, and where the flesh is daily diminishing.

Our author gives the result of his experience in the treatment of dysentery. He considered opium, in every shape, as injurious. In all cases where there were pain and tenderness in the abdomen, he bled, and found the blood buffed. Ipecacuan he considers the most important medicine. He gives it in doses of four or five grains, with extract of gentian. "In the more acute cases, and at the commencement of the disease, after the requisite depletion, calomel with opium, or blue pill with Dover's powder are sometimes beneficial; and mild laxatives of castor oil or rhubarb are essentially requisite in almost every case." This passage shews that the practice pursued thirty years ago is still the best in the long run.

### III. EPIDEMIC CATARRH OR INFLUENZA. By Dr. *Ward.*

It is not a little curious that the influenza which harassed this country in the beginning of 1833, commenced, or at all events occurred, in the

Island of Java, in May, 1831, and reached Penang, in the straits of Malacca, by the middle of July, 1832. In January, 1833, it visited us, and has since gone westward, and is now probably extinguished in the back woods of America! That the disease was identical with that which occurred here, is proved by the following succinct description of it, allowing for the great difference of climate.

"The disease appeared in the form of severe catarrh, attacking suddenly, in many cases with rigor. The usual symptoms were ardent fever; great languor; sudden prostration of strength; headach, often violent with heaviness over the eyebrows; severe muscular pains over the body, but more especially in the lower extremities; frequently nausea, and sometimes vomiting; harassing and constant cough, at first unattended with expectoration; accompanied sometimes with pains in the chest; sore-throat, producing difficulty of swallowing; slight inflammation of the eyes; increased flow of tears; sneezing and copious discharge of thin arid mucus from the nostrils." "There was considerable thirst; want of appetite in most of the cases, and the tongue was coated with a white fur. The depression of strength and spirits was considerable during the continuance of the febrile symptoms. The nights were restless, and the cough and catarrhal signs were generally most severe towards the evening, and in the mornings. These symptoms continued with more or less severity, for two or three, seldom more than four, days, when they gradually disappeared, leaving the patient weak and languid." 125.

Thus then we see that the influenza *travelled*, as is the expression, from East to West, at a somewhat quicker rate certainly than the cholera—but still in the same course—and, we may fairly conclude, in the same manner. Was this by contagion? And if not, why not? The contagionists must answer this puzzle.

## IV. Remarks on Malignant Ulcer and Hospital Gangrene. By *J. L. Geddes*, Esq.

This we must pass over for the present, and proceed to another subject.

## V. On Abscess of the Liver in European Subjects at the Madras Presidency. By *W. Geddes*, Esq.

This is a subject of great interest in India—and even to medical practitioners in this country. The author's attention was attracted to it by the frequency of its occurrence in a body of European troops under his charge. In numerous casualties dissection showed the disease in question. "The symptoms varied greatly in almost every case previous to death; and the fatal event seemed to depend often upon the presence of peculiar affections superadded to those more immediately resulting from the collection of purulent matter." This led our author to carefully trace the history of these cases, and inquire into all the symptoms which occurred from the individual's arrival in India, up to the final period.

"On a reference to Table, No. 2, the site and size of the abscess will be observed, as found on dissection. From this table, it appears, that the most common description has been a large and solitary collection of purulent matter; and this, most generally, has been situated in the upper part of the right lobe of the liver, towards its posterior surface. Fifteen of twenty-six abscesses were

placed in this situation. In two of these, the disease had penetrated the diaphragm and lungs, part of the contents of the abscess having been brought up by expectoration; and in another, the collection of matter pointed outwards between the ribs, and had been laid open some time previous to the patient's decease. In the remaining twelve, the abscess continued entire, bounded either by the substance of the liver, the ribs, or diaphragm. In three cases, the collection of matter was found near the lower margin of the right lobe, which adhered in two of them to the colon. The left lobe was, only in two instances, the seat of a solitary abscess; in one of them, the tendency of the disease was towards the concave surface, where the abscess had burst, and its matter became diffused over the abdomen: and in the other, the seat of the disease was in the upper convex portion of the lobe. In one case, there was one large abscess in the centre of the right lobe, and a small one in the left; while, in the remaining five of the 26 cases recorded, the disease consisted in a number of small abscesses, diffused through the substance of both lobes of the liver." 294.

The liver was generally protruded beyond the ribs by the distention of the abscess, giving rise to the appearance of enlargement of the organ; but there was not actual hypertrophy of the substance of the liver. The contents of the gall-bladder were, almost always, thick and tarry; or thin and glairy.

"In the large intestines, the diseased appearances were generally in proportion to the degree of dysenteric affection, immediately preceding death. In 10 cases, where there was either no irregularity, or the bowels were inclined to constipation, or the evacuations, although loose, were more of a diarrhœal nature, and generally unattended with blood, little or no disease, with the exception of some contraction of the colon, was met with. In the remaining cases, ulceration or disease was discovered in all degrees, in proportion to the previous dysentery, and varying from one or two superficial ulcers in the head of the colon, to general ulceration, with thickening of the large intestines. It may be remarked, that in all the instances, with one exception, where the intestines were found healthy, the abscess was situated in the upper and outer part of the right lobe, or deep seated in this lobe; but in the five other cases, where the collection of matter was thus situated, all had severe dysenteric symptoms in the course of their illness; and in Nos. 22 and 28, this affection was more immediately the cause of death. In one case, where the disease in the liver was in the inferior margin of the right lobe, and contiguous to the colon, there was no disease of the intestines; in another, there were only one or two superficial ulcerations, where the liver adhered; and in the third, there was more extensive ulceration. The disease of the intestines, where the left lobe was the seat of the abscess, was not very conspicuous on dissection, nor the dysenteric symptoms severe at the time of death; but in all five cases of numerous abscesses, the intestines were peculiarly affected." 297.

The symptoms of an abscess having formed in the liver were modified, partly by the site of the abscess, but chiefly from the peculiarities of constitution in the patient. No two cases presented the same phenomena, whether in the symptoms, progress, or in the final cause of death.

"There does not appear, either, any one symptom which has been constantly present in cases of this description; or which is not occasionally met with where dissection afterwards proves that an abscess in the liver had not existed. Hence, in many instances, an uncertainty in the diagnosis, the result of which is more particularly evident from the different designations given to the disease on the patient's last admission into hospital. Thus it will be seen from one of the columns of Table No. 1, that in reference to the symptoms which had chiefly

attracted attention, on the patient's reporting himself, 16 only of 28 cases had been named liver or hepatic disease. Five were considered dysentery; two continued, and one intermittent, fever; two abdominal inflammation; one chronic diarrhœa, and one debility. The same circumstance would be equally evident, if the designations of the attacks preceding the fatal one were in like manner examined. From the above terms, however, as well as the table at page 291, and the fact is confirmed by an examination of the cases, it appears, that the most common and earlier symptoms of the disease are either,—firstly, some description of uneasy sensation referred to the site of the liver, or to the adjoining parts, as the thorax, abdomen, or right shoulder:—secondly, affection of the bowels, either of a dysenteric or diarrhœal nature:—and thirdly, pyrexia under different forms. Sometimes two or more of these morbid indications are combined, particularly a degree of pyrexia with either pain or dysentery: but in general, where the dysenteric symptoms are severe, there is little pain of side; and again, where the pain is urgent, there is not much annoyance from affection of the bowels.

From many of the cases, there can be little doubt entertained, that the process of suppuration in the liver may be unattended with pain. Thus in the most rapid of them, where the patient was only eight days in hospital, and it is stated in the journal, that the pain had seized him on the preceding day, and was removed, although for a time only, by venesection to the extent of two pounds of blood, and 88 leeches in the first 24 hours of his being in hospital, a large abscess, containing a pint of matter, is recorded as being found upon dissection in the right lobe of the liver. In No. 4, no pain was reported to exist in the region of the liver throughout the disease, while in Nos. 5, 8, 12, 23, and 24, none was reported until from 8 to 14 days before the death of the patient. In several other cases, the pain which has been extremely slight and transient, and in almost every instance, where the collection of matter has been found even to the extent of a quart, there have been periods of perfect immunity from this symptom, sometimes of considerable duration, while from the size of the abscess on dissection, it is impossible to conceive that the purulent matter had not existed, and been progressively increasing at these periods, or that where there had been no pain felt until shortly before the decease, the symptoms which were previously met with had not been caused by the presence of a collection of this description. These considerations may in some measure explain my having dated the commencement of the disease in some instances at so long a period prior to the death of the patient; even where there was no pain complained of in the site of the liver, and my having referred various feelings and symptoms which are found recorded, to the presence of an abscess in this organ, when dissection afterwards proved that such was ultimately the cause of death." 299.

It appears from our author, that no dependance can be placed on the site of the pain. Sometimes it was in one place, sometimes in another, and often no where. One case is so peculiar that we shall state it.

"The patient reported himself on the third day after his illness attracted his attention, and on the 11th from his decease. He complained, on admission, of severe pain in the lower part of the right lobe of the liver, and it was felt along the edge of the ribs on pressure, but he could draw his breath pretty freely, and lie on his right side; having a sensation of a great weight however in turning over to his left. He had no pain in the shoulder. On the 5th day from admission, he was free from any uneasy sensation, excepting that of a feeling of weight at his breast, as if, according to his own account, he had eaten suet, and had a desire to vomit. On the following day, this sensation was changed to a degree of dyspnœa, imputed to weakness, a feeling of being hot and oppressed, and until two days before his death this feeling is recognised by the expression of 'a sense of oppression and clogging in the breast,' or 'at the stomach,' or

'across the chest,' or 'a feeling of a ball at the scrobiculus cordis, which on inspiration is conceived to be passing upwards. During the last two days of his life, his sense of anxiety was attended with general pains in his limbs, and a sensation of deadness or coldness in them, which caused him to scream." 307.

The large intestines appear to peculiarly sympathise with the state of the liver. Few of the cases of hepatic abscess have been unattended by bowel-complaint.

The constitutional disorder attendant upon these cases is undoubtedly to be considered as a pure hectic fever, which varies in little or no degree from that described by the most experienced writers in Europe, as attendant on purulent collections situated in similar circumstances with those which form the subject of this paper. In a few instances the symptoms of hectic have been extremely mild for some time, or have been unattended with frequency of pulse, or heat of skin, the only indications of general disorder being the low exhausted state of the patient, some irritability of the pulse, want of appetite or sleep, and an increasing emaciation. In other cases again, by causes of excitement, or other means, a degree of synochal fever appears to become connected with the hectic, a circumstance which is often found on the admission of the patient into hospital, requiring active measures for his relief, but, as may be inferred, having no effect in the prevention of an abscess, this being already formed. In a few instances, these affections have put on more the features of a continued fever, similar to that of irritation, the pulse continuing small and frequent for a few days; at some particular period, with little appearance of exacerbation or remission. The constitutional disorder, however, in general assumes the aspect of a paroxysmal fever. Under its form, the febrile accessions have been found to occur in some instances with a sudden attack of shivering, vomiting, and purging, and the symptoms diminished gradually in a day or two, the patient being left, comparatively speaking, free from fever, the pulse gradually declining to the rate at which it had been previous to the febrile paroxysm. These accessions occur at intervals of various duration, and often put on the appearance of relapses of common intermittent or remittent fever. At other periods such exacerbations are less marked, the chief symptoms being rigors occurring at irregular intervals, generally with some increase of frequency of the pulse, and alternating with sweatings, which have been usually remarked at some period of the night. These sweatings have been in some individuals excessive, the perspiration being stated to be pouring off them like rain, and in one or two instances of this description, there has been considerable sinking of the vis vitæ at the same time.

In the more chronic cases, however, the most usual description of hectic consisted in a degree of fever, evidenced by an increased frequency of the pulse, at some period of the afternoon or evening, with heat of skin, and this was also observed occasionally to have terminated in perspiration. These daily paroxysms were at times broken in upon by either of the forms of hectic above-mentioned, while upon other occasions, after ceasing to be manifested for several days they were again observed. Under all these forms of hectic, the pulse is very generally recorded as weak or thready, or irritable, very seldom having a full soft feel; and having a daily or other range, according to the state of the fever. At the same time, as the disease proceeded to its fatal termination, there was a greater general frequency of the pulse, subject to be occasionally further increased on the accession of the hectic paroxysms. There was a great diversity however in the degree of frequency of the pulse in each individual; in some there being little general acceleration for a long period of the disease, while with others, it ranged constantly above a hundred for some weeks previous to the patient's death. The pulse has also been observed to be irregular, at times, in the progress of some of the cases.

Along with the attacks of hectic, the countenance of the individual generally

loses its florid aspect, becoming either of a pallid, leucophlegmatic or sallow hue. In one case, it has been mentioned, that the patient became somewhat jaundiced with almost every accession of fever; and, in No. 8, there was an affection of a like nature from the fourth day preceding the disease.

Debility and emaciation succeed according to the length to which the disease is extended, and in a few instances, where this has been of some duration, these symptoms have eventually been very conspicuous, and œdema of the legs and right arm has been met with." 329.

One more short extract, and we shall close this article.

"Inflammation of the liver has long been distinguished into the acute and chronic hepatitis; and there is reason for distinction in the inflammatory diseases of this organ, although, not from being, I am inclined to think, more or less attended with inflammatory symptoms as has been generally understood by these terms of chronic and acute, but inasmuch as one is an acute inflammation, occurring most probably in the peritoneal covering of the liver, and having a tendency to terminate in resolution or adhesion, while the other is only an occasional aggravation of a disease which has existed for some time, most probably in the parenchyma of this viscus, and which may continue its progress after the more inflammatory symptoms have been subdued. The latter, in short, is the diease under which inflammation of the liver most usually proves fatal, and is that which, under its different aspects appears to have affected the greater number of the cases above described.

In the treatment of each of these varieties of disease of the liver, it would appear useful to recollect the above distinction, even where the inflammatory symptoms of each seemed of equal severity. In the first, antiphlogistic measures may be used to their fullest extent with benefit, and with these the affection of the mouth by mercury to ptyalism will remove the disease. In the latter, indicated either by previous bad health, the constitution of the patient, or symptoms such as have been described to have attended the above cases, it would seem advisable to bear in mind the necessity of reducing the strength as little as possible; and the propriety of exhibition of mercury, which in few cases excites a free salivation, may be questionable. The analogous case of phthisis pulmonalis ought, I think, to be held in view, particularly in the more chronic cases of this hepatic disorder; and the indications for the treatment generally should be, in the 1st place, attention to urgent symptoms; and 2dly, to change the tendency to the formation of purulent matter, and to induce an absorption of that already formed, by diminishing the hectic fever, and strengthening the patient's constitution. This, I imagine, is not to be done by means of medicine, although the quinine has has been found serviceable in both these respects; but chiefly by the gradual aid of change of air and scene, gentle exercise, and a sea voyage, with peculiar attention to the use of a mild, nourishing, slightly stimulating diet, such as is recommended to consumptive individuals, or those suffering from hectic fever, produced by causes similar to an abscess of the liver." 336.

We must now conclude our first notice of this volume. In our next Number we shall proceed with our analysis, and hope to do justice to the professional exertions of our Oriental brethren.

## VIII.

BEOBACHTUNGEN URSPRUNGLICHER BILDUNGSFEHLER UND GAENZLICHEN MANGELS DER AUGEN, BEI MENSCHEN, UND THIEREN, Von *B. W. Seiler.* Folio, pp. 64. Dresden.

OBSERVATIONS ON THE ORIGINAL MALFORMATIONS AND TOTAL WANT OF THE EYES, IN MAN AND IN THE LOWER ANIMALS.

(FIRST ARTICLE.)

IT is a striking feature of difference between the medical literature of the last quarter of a century in Germany, and that in Britain during the same period, that while a new science, we mean that of embryology, may be said to have sprung up among, and certainly to have been first properly appreciated and studiously investigated by our Continental brethren, it should have yet scarcely drawn the attention of a single anatomist in this country, with the exception of the very few who are in the habit of perusing German publications; and even among them, although it may have been admired and approved of in the quiet lucubrations of their own minds, and occasionally, perhaps, discussed at conversational meetings, not one has stepped forward into the arena of public authorship to adduce a single discovery, or to challenge a portion of those laurels which have been so honourably won by Meckel, Walther, Rudolphi, Baer, Burdach, and a host of others throughout Germany. These are proud names for one country to boast of, and if we have not associated with them any of the French school, let it not be supposed that we are actuated by any feelings of envy, or of national rivalry, in so doing; for very far is it from our intention to undervalue, or in any attempt to gainsay the merit which justly belongs to it. The labours of Geoffroy St. Hilaire, Breschet, Serres, Velpeau, &c. although inferior in eminence to those of their Trans-Rhenal competitors, are worthy of all applause, and of our own most cordial imitation. The English, and not the French, have been the remiss workmen in this vineyard of knowledge; to the shame of the former be it said they have not begun to lay even the foundation of this building, while the latter have raised it half-way up. But so it has too generally been with our countrymen; how rarely have they ever had the merit of primarily originating any new branch of enquiry! how seldom have they been the first to launch their skiff upon an unknown sea! Perhaps some will answer that it is fully as well, as the result has shown on more occasions than one, and that if we enquire what is the cause of this national backwardness, the solution will not be found a very difficult task.

A genius for speculation is assuredly not the moving spring of the British character; but, to compensate for this defect, the judging and discriminating powers of the people are far before their talent for invention. The sciences of astronomy, of navigation, of mechanics and of agriculture, and the practical application of their laws and principles, may be adduced as fit examples to illustrate the position we have laid down. To these sciences and arts we may probably add, most of the branches of medicine (using that word in its widest acceptation;) for we believe that it is very generally admitted that

there is more practical sagacity, and more professional dexterity and usefulness, among the British than among any of the Continental physicians; but when we have claimed this merit, we must not dare to go further—we are decidedly inferior as physiologists, as botanists, and as zoologists; our attention having been directed rather in every-day occurrencies of life, than to the pursuits of less immediate, but certainly of more philosophic researches; and verily to each has been its reward; while the fame and glory of discoveries belong to others, ours has been the no mean praise of testing and sifting these discoveries, of ascertaining their usefulness, and of applying them to the general welfare of mankind. We have been induced to make these remarks, because the hope is strong in our breasts, that the energies of the English mind may soon be directed to the examination of embryological studies. Perhaps there is not a branch of medical enquiry more worthy of the attention of a philosophical mind, than the science of the development of animals; or one which will repay the ingenuous mind with more striking and more beautiful truths. Can we fail to be struck with wonder when told that a being like man, or any of the higher creatures, has during its embryotic life, passed successively through various grades of formation, the more simple being formed at first, and these allying it to the organization of the humbler animals, and the more and more complex gradually following each other, as the being assumes successively the types of structure which characterise the tribes of aqueous, amphibious, and aërial vertebrates? The very mention of this fact is surely enough to stimulate the curiosity of every one; and it opens up a new and fresh field for philosophic enquiry and speculation, which, while it captivates our fancy by unexpected discoveries, impresses our minds with a more sublime admiration of the infinite wonders of the creating God. The operations of His hand are found to be ever simple, when rightly understood; and even when there seems to be the most irreconcileable disharmony in them, we have but to advance a step or two, and we discover that the chain is unbroken—that there is no sudden or abrupt transition from one link to another, but that all is beauteously connected together, and that as it was contrived by one mind, and as it proceeded from one hand at first, it still bears the impress of one uniformly-pervading character. It was long supposed that animal monsters were often mere rude and formless lumps—that they exhibited no marks of special design, but that they had arisen from some fortuitous and confused agglutination of parts. But such chance work is seldom the case, even with inorganic products, and is never so with any organized creature. A monster, however deformed, will be found quite as organized a being (we do not say as highly) as the perfect animal; it may not, indeed, be capable of independent existence, and it can never, perhaps, propagate itself, but still it is a living thing; and from this mere circumstance alone, of having been impressed with a vital principle, we shall find that we may be warranted in inferring that it has a place somewhere in the zoological series. This position may be expressed more distinctly in the following terms:—"Almost every congenital anomaly or malformation, occurring in a higher animal, has a resemblance to, and has a congeneral type in, the normal structure of some of the lower animals." On another occasion, and that occasion shall not be long delayed, we promise to return to the illustration of this most curious subject; at present we can only advert to it in connexion

with another topic, most intimately associated with it, and which, indeed, cannot well be separated; we allude to the fact, that every mammal embryo has worn, as it were, different, but regularly successive, forms of organization, at different periods of its uterine existence, and that one of the early forms of an organ or part may remain much longer than is normal, and thus the ulterior development be arrested, so that, at the time of birth, a state of parts is found, unnatural indeed, to a fœtus of nine months, but strictly natural to one of three or four months. An example or two will satisfactorily illustrate our meaning. A child is born having the head distended with water, and the brain seemingly quite shrivelled away; but the real truth may be, that the brain, that is the encephalic medullary substance, was never present. We must be wrong, therefore, in supposing that it has become shrivelled from absorption, in consequence of the large quantity of fluid contained within; and the correct rationale of this case may in all probability be discovered to be, that the ulterior development of the part had been stopped or arrested at an early period of its embryotic existence, and that, in place of the complex mechanism of the cerebrum and cerebellum being formed as ought to have been, a condition of the part is left behind, corresponding to the period at which the arrest of development took place. Now if we continue our inquiries, and endeavour to ascertain the different appearances which the encephalon exhibits at different periods after impregnation, we shall soon find that, in the very young embryo, the place of the brain is occupied with a mere vesicle, full of limpid serum—that this vesicle, in course of time, begins to present a division into different parts, and that it is only at a subsequent period that we can discover the slightest traces of medullary matter within. Here, then, we have a state of parts analogous, at least in some respects, to the state which many hydrocephalic monsters exhibit at the time of birth. Equally illustrative of the same doctrine are all the examples of spina bifida, of concreted fingers and toes, of the persistence of the membrana pupillaris, and so forth; but it must be quite unnecessary to multiply proofs now, when our readers will find, on the perusal of this paper, that almost every congenital anomaly of the organ of sight has its type in the normal condition of the part, at some epoch or another of the embryo's existence. The work of Dr. Seiler is devoted exclusively to the investigation of ophthalmic malformations, and from the very great erudition which it displays, we predict that it will be received by all as a most valuable monograph on one theme of embryology.

The first section is occupied with the consideration of the general malformations, or of those which affect the entire organ; the second gives a description of the malformations of its special parts or structures. In treating of the first class, or of the general malformations, we shall allude to them as they affect the number, situation, size, form, and the very existence of the eye-balls, mentioning, under each head, the most interesting embryological changes which the organ undergoes, up to the time of its complete maturity.

## GENERAL MALFORMATIONS.

### I. Number of Eyes.

*Supernumerary.* There is no well confirmed or trustworthy example on record of more than two eyes having ever been found in a head which was truly single; that is, where there were no traces of the melting together of two heads discoverable. Many authors indeed have told us of human fœtuses which had three or four eyes; but these were in reality bicephalous monsters, and were no doubt provided with two noses, four ears, a double mouth, and so forth, or at least with rudiments of such anomalies.

*Defective.* Rudolphi has detailed the particulars of a genuine example of monophthalmia, in which, one eye was quite awanting, while the other was present. The child was otherwise healthy, born at the full time, and lived for sixteen hours. There was no trace of the right eye, nor of any of its appendages, such as the eyebrow, eyelids, muscles, and nerves. Nothing could be seen in its place, but a shallow furrow, and the orbitar plates of the frontal and of the upper maxillary bones had so grown together, that the skin of the forehead passed almost quite smooth and level down to the cheek. But other parts also were deficient; thus there was neither a right olfactory nerve, nor a right optic nerve to be found; the left optic was regular; and at the usual place of the meeting of the two nerves, it gave off a small process, which terminated in an empty sheath, continuous with the dura mater. The third, fourth and sixth cerebral nerves on the right side were wanting; on the left they existed as usual. The other cerebral nerves were present on both sides. The right optic thalamus was of a pyriform shape and terminated in a thin, short point, which was continuous with the commencement of the posterior lobe of the brain, or with the prolongation of the cornu ammonis on that side. The right lateral ventricle was smaller than the left: the tenia semicircularis was wanting, and the cornu ammonis was very indistinct. Water was found in the fifth ventricle; and the third was larger than usual. The right anterior crus of the fornix was wanting, and also the right corpus mamillare.

Professor Walther has recorded a case similar in many respects to the preceding; in it the left eye was deficient; the bony orbit was very small; and the lids were almost quite shrivelled away.

Otto found a similar anomaly in a calf, which he examined.

Such cases as these we have alluded to ought to be carefully distinguished from another sort of "monophthalmus," or as St. Hilaire has better called it, "monopsia;" we mean that in which the existing eye is situated in the median line; the former may be denominated perfect; the latter imperfect, or Cyclopic. Now the difference in these two forms is important; for in the one, the existing eye may be quite normal in its formation; but in all the cases of the other, which have been attentively examined, there have been more or less distinct traces of a second eye (such as double cornea, double lens, double iris, &c.); even in such an example as Haller describes, where neither the cornea, sclerotic, choroid, nor lens, exhibited any marks of duplicity, except their unusual size, although the upper eye-lid was to all appearance compound. There thus seems to be an effort in the formative principle to the construction of two eyes, or at least of a duplicate of some of its structures. The consideration therefore of the Cyclopic variety of monopsia belongs rather to the anomalies of the position than of the number of the organs.

## II. POSITION OF THE EYES.

The anomalies in this respect are very various; the eyes may be situated too high or too low in the face; too near to, or too far apart from each other; unusually sunk, or over-prominent; or the direction of their axes may be changed from the normal line.

In anencephalous, microcephalous, and hydrocephalic monsters, an extraordinary projection of the eyes is not uncommon; and this may be occasioned either by some irregularity in the normal direction of the bony walls of the orbit or by an imperfect developement of one or of several of the bones, which enter into its formation. In some rare cases the protrusion of the eye amounts to "exophthalmia congenita," or "ophthalmoptosis."

The stories which we read of in the writings of Pliny and of many later authors, about their having seen monsters, whose eyes were placed on the breast, in the axilla, on the shoulders, or on the back of the occiput, are quite fanciful and untrue; in all probability the fœtuses were acephalous, and wanted the cervical vertebræ in the first set of cases; and in the latter, or occipital-eyed monsters, there might be two heads confusedly joined together; or lastly, what were taken for eyes, were really not so, and only somewhat like to these organs. To descant upon this subject would be an idle loss of time; we shall therefore proceed to the consideration of some malformations, which are more common, and ought therefore to be more attentively examined. Every one knows that the eyes are sometimes situated nearer to each other than is natural; and that at other times they are abnormally apart. There are various degrees of the former of these malformations; the extreme being that wherein the two orbits are almost quite melted, as it were, into each other, the eye-balls however remaining distinct; and which may be said to prepare the way for "monophthalmus," or imperfect cyclopia." The anatomical investigation of such examples, shews that there is an imperfect developement of the frontal processes of the upper jaw, of the æthmoid, lachrymal, and of the nasal bones. Meckel, in his manual of pathological anatomy, has ascribed every example of monophthalmus, as well as of monopodia, or one-footedness, to the concreting or melting together of the parts, which are naturally double; but more lately he has modified this doctrine, and admitted, that these monstrosities may arise from the developement of the organs being somehow or another impeded or arrested. Still more recently that acute observer Huschke has come to the conclusion, from multiplied investigations of the very early embryo chick, that monophthalmus ought to be regarded, not as a colliquation of the two eyes, but rather as a continued or over-prolonged existence of a natural state of parts. We are inclined to subscribe to this doctrine of Huschke; but at the same time we acknowledge that the hypothesis which supposes that the most perfect, or complete form of cyclopia, or of genuine monophthalmus, corresponds with a still earlier period of the normal formation of the eye, requires before it can be received, the confirmation of numerous experiments, especially on the embryos of mammiferous animals. As the extreme softness and delicacy of the structures of the early chick render any examination of them most difficult and uncertain, it will be a great achievement of some future anatomist, to discover a method how to investigate a mammal embryo, at that period of its existence when it is supposed to correspond or be analogous to the young chick on the first day of incubation. Notwithstanding numerous trials, our author informs us that he has not hitherto been more fortunate than Harvey, Haller, Baer, and others, in determining exactly the day when the embryo may first be discovered after impregnation. In the sheep and dog he has never found it before the 19th or 20th day; and at this period we may almost always observe at the sides of the anterior extremity two small black dots, which are the rudiments of the eye-balls, or at least corres-

pond with the position of the sockets. The same appearances Dr. Seiler has seen in a human embryo, only 21 days old.

We have already observed that the anomaly which we have been describing is very different from the complete, or Cyclopic monophthalmus. The two kinds may so far agree, that a single eye lies in one simple socket, but the number and form of the parts do not ever quite correspond in each. Both of these anomalies in the formation of the eye are very commonly associated with traces of arrested developement, in several of the adjoining structures; especially in the bones of the face, and also of the cranium; hydrocephalus is a frequent accompaniment; and even some of the nerves may be found altogether awanting on dissection. The more distant parts of the body may be simultaneously affected; thus there may be spina bifida, umbilical hernia, uterus bicornis, concretion of the two kidneys, and so forth.

The cyclopia is by no means unfrequently met with in the fœtuses of some mammal animals, especially in the sheep and swine; more rarely in human fœtuses; and still more rarely in the next class of animals, the birds: such at least is the order of frequency, as hitherto ascertained. Those who are anxious to obtain more extended information on this very interesting subject, should consult the manuals of pathological anatomy, by Voigtel, Meckel, Otto, &c., and the separate memoirs of Tiedeman and Huschke.

### III. Size of the Eyes.

In judging of the size of this organ we must not forget to remark attentively the degree of its projection from the socket; for should this be unusually small, while the eye is of ordinary dimensions, an observer might be led to believe that he had met with a case of enlargement of the eyeball, or of megalophthalmus. It is only necessary to allude to this source of error, to prevent our readers from committing it. In the genuine anomaly, not only is the organ apparently, but it is actually and intrinsically magnified, sometimes in all its component structures, at other times only in some of them, as the vitreous humor, cornea, &c. There is very generally an accompanying disease, or malformation, such as cyclopia, hydrocephalus, or anencephalous, in cases of megalophthalmus.

Our author has figured a well-marked example of this anomaly in a fœtus; the longitudinal diameter, from the superior to the inferior rectus muscle, measured half an inch; the transverse one was the same; and the antero-posterior diameter, or axis of the eye, was seven lines.

In congenital hydrocephalus the vitreous humor often retains its primitive fluidity; and as the quantity of this may go on increasing, the eye-ball speedily acquires an enlarged size. In one case detailed by our author, in which the optic nerve was quite awanting, and only its neurilema remained, this sheath was found distended with a fluid, in every respect similar to that contained simultaneously within the dura mater of the brain; a fact, among others, which has led Huschke to maintain that a passage or canal exists primitively between the lateral ventricles to the eyes; that there these canals expend themselves into globular sacs in order to contain the humors, and to afford surfaces for the extension of the retinæ. He thus considers the ocular humors as part of the fluid which so abundantly fills up the cells of the very young embryonic brain, and which in the after age collects into a few drops within certain definite cavities, denominated the ventricles. In confirmation of these doctrines, Huschke alludes to the state of the vitreous humor in the lower vertebrated animals, in which it has nearly the same consistence and chemical properties as the cerebral fluid. We may therefore adduce this as one among a host of other examples, proving the identity of a malformation in a higher animal, with a normal formation in a lower.

The opposite anomaly to that which we have been describing is "microph-

thalmus," in which the eye or eyes are unusually small. Beer, in 1813, was the first to notice distinctly this affection; and subsequently it has been illustrated by Pœnitz, Gescheidt, and others. One case which has been narrated by Pœnitz was observed in an infant four weeks old; the eyelids were normally formed, but the eye-balls, and especially the cornea were much too small; the outer margin of the left cornea was not uniformly circular, but irregular and notched. The iris seemed to lie on the cornea, and the pupil was not larger than a fly's head. The right cornea was larger by one half than the left, and was so opaque that the boundaries between it and the sclerotic coat were not manifest; the latter seemed to be prolonged or continued in striæ over the former, so that no part of this cornea was transparent. The right pupil was as diminutive as the left one. This case is especially valuable as it occurred in a living child, which continued to exist for some time, and in which any change after birth might therefore be observed. Now the very interesting fact was observed, that by the twelfth week the corneæ were not only considerably larger than in the fourth, but they had become also clearer, more transparent, and more distinctly separated from the sclerotic. The pupils too were rounder and blacker than before.

Fisher has briefly related two cases of microphthalmus; one occurred in a boy; the left eye was wanting; and the cornea of the right one was not larger than a small pea, and utterly useless;—the other case occurred in a girl, who also wanted the left eye, and in whom the right cornea was exceedingly defective. In the case of an infant, six weeks old, seen and described by Weller, Gescheidt, and our author, both eyeballs were abnormally small; the irides were altogether awanting in their inferior third, and the other two-thirds were very small. With these exceptions the eyeballs were not formed amiss. When the child was three years old, the right eye was one-fourth smaller in all its dimensions than the left. The fissure between the right eyelids was extremely short, and the upper lid hung down over the lower one, so that the eye could not be examined without difficulty.

In both eyes there was a coloboma, or partial deficiency of the iris: the convexity of the left cornea was normal, but the under segment of the right cornea, was not only less projecting, but also smaller than the superior one.

In Meckel's Archives of Anatomy and Physiology for 1830, we have the particulars of a case which was observed in a girl, nine years of age; both eyes were at least one-half too small; the different parts of the right one seemed to be quite normally formed; but the left lens was opaque. The eyelids could be separated but a very little way from each other. A younger child of the same family presented similar defects. In both, the sensibility to light was almost or entirely gone. Escher mentions a case of microphthalmus which he saw in a woman 41 years of age. In her the right eye was and had been from infancy one half smaller than the left; its convexity was normal, and it lay very deep in the socket; the eyelids were almost always closed; but on separating them, the cornea was found transparent, the iris of a yellowish grey colour, but partially awanting, and the lens or its capsule was opaque. The right eye was altogether normal.

Schoen has related in Ammon's Journal of Ophthalmology, an interesting example of this affection which he observed in a well-formed female infant, ten days old. The eyelids of both eyes were concave outwardly, being drawn into the sockets. On separating those of the right side, as far as they could be, he saw, deep hid in the socket, a whitish red body, not larger than a pea, having a small black speck in the middle, (a rudiment of the iris and pupil,) moving from one side to another. The almost empty socket appeared to be lined with a loose red-coloured membrane, which was continued over the inner surfaces of the two lids. The left eye-ball was considerably larger than the right one, but still much smaller than natural; and its cornea was flattened, and not easily distin-

guishable at the margin from the sclerotic; although it was transparent, neither an iris nor a pupil could be distinctly seen through it. When this child was six months old, it was found that the right eye remained nearly in "statu quo;" but the left one had increased in size;—no iris however could yet be discovered. There seemed to be a complete insensibility to light. Another very curious example is given by the author who has communicated the preceding. The girl was seven years of age when he saw her;—the left eyelids were kept always closed, and the cleft between them was a quarter of an inch shorter on this side than on the other. When opened, he observed a rudimentary eyeball, surrounded with cellular tissue and fat, in the middle of and deep within the socket; it was of a whitish colour, and moved about freely and regularly; the cornea was transparent, but too flat; the dull-blue iris was motionless; the pupil was large but defective at its lower part, or, to use a Celsian phrase, was slightly colobomatous. Very little change had taken place in either eye since infancy; and the girl had been always quite blind.

Numerous examples similar to those now described may be found, no doubt, in every institution for the blind, in this, and in most other countries. As yet indeed little attention has been paid to the very curious, and we may add, very instructive (at least to the philosophic physician and surgeon) subject of congenital malformations in the British dominions; but it is to be hoped that the future will be more rich and promising, and that we shall follow the admirable example of the continental, and more especially of the German anatomists, in investigating the wonders of embryology. No exertion shall be wanting on our part to afford every assistance, whether by publishing the original communications of native enquirers, or by presenting faithful abstracts of the most approved writings of foreign authors. It is to be hoped that the present article will be received as an earnest of the sincerity of our promises.

To return "ad rem;"—our author alludes to the dissection of a case of microphthalmus reported from the blind institution at Dresden. In C. Herzog both eyes were preternaturally small, and the sight had been always very defective. This man died of typhus fever; and upon examining the body after death, the following appearances in the eyes were found. Their form was more lengthened than is usual; the size of the optic nerves was in proportion to that of the balls; the scleroticæ were somewhat abnormally thickened, but otherwise healthy; the choroid coats were equally so; the vitreous humors were transparent, but scanty in quantity; but there were no traces of the lens in either eye;—the crystalline capsules were however thick, yellowish, and, as it were, rumpled on the surface; the coronæ ciliares were indistinct, and the uveæ but imperfectly coloured.

From an attentive consideration of the cases of microphthalmus, especially when these are viewed in connexion with the other signs of arrested developement, which are so commonly associated with them, we find numerous proofs in confirmation of the admirable descriptions of the gradual developement of the eyes in the embryo, recently published by Ammon and Huschke. Some of the successive steps or stages of the developement are yet imperfectly known, and probably may long continue to be so, in consequence of the extreme softness and delicacy of the embryonic structures; but there is good reason to hope, that the gaps in the enquiry may be, in some degree at least, filled up, if all the phenomena of microphthalmus, at different periods of life, from birth to adult age, be well and satisfactorily investigated; more particularly if every change which may take place during the lives of the patients be diligently observed and accurately recorded. On this, as on every other subject of experimental enquiry, there must be a rich accumulation of authenticated facts to form a groundwork for safe deduction; the humblest labourer may contribute his quota; but it remains for a master, like the great Cuvier, to trace the beautiful harmony of the whole. According to Huschke's observations the most anterior and the

broadest dent in the "primitive fold" or "dorsal plane" of the young embryo, is the earliest trace of the eye-ball with its socket. The eye, he says, appears originally as a half canal or open hollow on the germinal membrane; and this appearance may be seen in the chick, on the first day of incubation. In the second step of developement, the hollow or dimple is converted into a bladder or cell, which looks as if it were formed by a tucking up of the meningeal membrane. The primary parts, or those first developed, are therefore the cavities of the eye-ball, which proceed or are formed from a folding of the outer integuments; they are open at first, and their parietes are connected partly with these and partly with the membranes of the brain. As yet there is no vestige of a crystalline lens; and the only appearance of the vitreous body is a transparent fluid, which, without being contained in any proper membrane, fills up the hollow of the scarce closed eye-ball, and seems to be continuous with that in the cells of the brain, still free from any medullary substance. At first the individual membranes of the eye are quite undistinguishable and also the muscles and all the other appendages. At a somewhat later period the sclerotic and choroid coats may be made out, and after these the retina. Now if we stop here and compare the preparations which illustrate the arrests of developement at different periods, we shall find some which exhibit appearances altogether similar to those described, as to be seen in the chick on the second day of incubation. Thus in one mentioned and figured by Dr. Seiler, the eye is nothing but a membranaceous cyst, which is formed externally by the sclerotic, and on whose inner surface the choroid lies, and which is filled with a transparent fluid, while all the other structures of the organ are quite awanting. The chief difference between the two cases is, that in the embryonic specimen there is an immediate connexion of the cyst with the cerebral membrane, whereas, in the abnormal one of a later date, this connexion is effected by means of a ligamentous or nervous canal, which may be either empty, or which may contain medullary fibres. In order to explain the connexion between the membranes of the eye and those of the brain, and to illustrate the developement of the retina and of the vitreous humor, we shall extract a passage from the instructive memoir of Huschke, on the anatomy of the chick in ovo.

"Proceeding from the fore part of the cerebral ventricle, there is a canal, which again expands in the eye, inclosing the retina, and which forms a passage for a part of that fluid, with which at this period the brain-cells are filled. This fluid is subsequently converted into the proper vitreous humor. In the lower animals of the vertebrated division it retains nearly the same consistence and chemical properties as those of the contents of their cerebral ventricles. In the very young embryo this fluid appears not to be contained within any proper membrane—at least such cannot be made out. If one does actually exist, it is no doubt a prolongation from the investing membrane of the ventricles. Admitting therefore that the retina is continued from the medullary walls of the cerebral cavities, and that the vitreous body is analogous to, and indeed derived from the serum within these, we are led to believe that the membrana vitrea corresponds to their epithelium. Many of the phenomena exhibited in cases of congenital hydrocephalus are in unison with, and therefore may be supposed to confirm these ideas. During the early stages of the developement of the nervous system there is a large quantity of fluid diffused through every part of its substance; and should an arrest or impediment to the ulterior progress of the developement ensue, while the mere process of enlargement or increase of size is going on, a state of parts is exhibited, agreeing in almost every respect with the appearances observed in the congenital disease above-mentioned."

These ingenious views of this acute physiologist are well corroborated by some of the drawings appended to Dr. Seiler's work:—In one, illustrative of a microcephalus monstrosity, we observe the perfectly fluid and transparent serum

in the place of the more consistent vitreous body; and in another is given the representation of a canal proceeding from the dura mater, and communicating inwardly with the watery cyst, in which the brain should have been contained, and outwardly with the cavity of the eyeball. This cavity was filled with a clear serum, altogether similar to that in the cerebral bag. No traces of retina were to be seen, probably because the medullary substance had not yet begun to be formed. It is to be remembered that such a state of parts is quite analogous to the condition of the eye and brain in a chick, on the 2d day after incubation.

"The crystalline lens begins to be formed," says Huschke, "in the following manner. When the embryo chick is two days and a few hours old, there appears suddenly a small circle within and concentric with the larger one, which we formerly described, to be the earliest rudimentary trace of the eye. This smaller circle indicates the formation of the lens;—it is clear at its edge, and somewhat opaque in the middle, but it is not cleft at any part, as the outer ring is, and it is perfectly round. The membrana crystallina is first formed, and in the following manner:—A small part of the fine membrane which covers the primitively open eye-dimples or hollows is pressed in, just as a sebaceous cyst is, from the investing layer of skin; the opening thus made becomes gradually narrower, and at length is altogether shut and becomes separated from the dermoid structure whence it was derived. The closing together takes place from before backwards, and so gradually that until about the middle of the third day of incubation, the entrance into the anterior wall of the crystalline capsule can, with the assistance of a magnifying glass, be seen as a dark-coloured spot. It follows, therefore, that the capsule of the lens is a portion of the tegumentary membrane, which becomes reflected inwards, and from which it is afterwards quite detached. The substance of the lens itself is subsequently generated as a secretion from its capsule." Our author (although he admits the startling prima facie unlikelihood of the supposition, that after the cyst of the embryo eyeball has been once closed, any part of its walls should become reflected inwards, to form such a tender and delicate structure as the crystalline lens) is inclined to accede to the above explanation given by Huschke. His authority, we are told, stands so high among his countrymen, and his extreme aversion from all precipitate inference is so well known, that we are bound to give credit to his descriptions until they are gainsayed by any competent observer. It appears, therefore, that the vitreous humor is formed some time before the lens; and we find that this result of anatomical investigation accords with some of the anomalies of structure in cases of congenital malformations of the eye. Thus the lens is occasionally awanting, while the humor is present. There is reason however to suppose, that when once the crystalline capsule is completed, the generation of the contained lens is very rapid. The abnormally deep position of the lens in the eyeball, observed sometimes in microphthalmus, arises probably from an arrested developement of the vitreous body, which, according to the researches of Ammon, is, up to the third month of conception, very small in bulk compared with that of the lens. In the circumstances of the blueish colour of the sclerotic, the obscurity or dullness of the cornea, and of the indistinct limitation between this membrane and the sclerotic, noticed in many microphthalmous children, we recognise the close analogy which exists between these occurrences and the state of parts in a fœtus about three months old. It is about this period that there is any evident distinction between the cornea and the sclerotica; but still the union of the two remains very close and strong, and cannot indeed be well separated either by maceration or in any other way;—they seem to be, as it were, melted into or amalgamated with each other. At a later period of fœtal life we first observe the iris. Ammon states that he has generally discovered a faint trace of it in a fœtus of about five months. In the complete absence of this curtain, and probably also in the coloboma, or partial deficiency of it, we recognise the manifestations of an arrested developement. If we now turn our

attention from the eyeball to the eyelids, we shall meet with examples of congenital malformations, which beautifully illustrate the truth of the law now mentioned. But, first of all, it will be useful to borrow Ammon's description of these parts in the human embryo, for the sake of an accurate comparison. "The eyes of a three-months' fœtus are not covered, but only embraced, or, as it were, girdled, with the lids; at a still earlier period, the balls quite project beyond the surface, but gradually become more and more depressed, or at least more inclosed, than heretofore, being received into the sockets, which hitherto were not formed. Cotemporaneous with the formation of the sockets is the first appearance of eyelids; these are minute folds of the skin, surrounding and embracing the eyes. The appearance of the eyes at this period is like that of an acorn in its cup. By the end of the third, or in the first half of the fourth month, the lids have so much increased in growth as to fairly cover the eyeball.

In fœtuses aborted at the fifth month, the eyelids are always found closed or glued together, but the one not perfectly in apposition with the other. If the parts be examined while they are quite fresh, it is observed that the gelatinous and very red skin forms processes or prolonged folds over the still very projecting eyeballs—the blue bulbs very distinctly glimmering between these processes. The cicatrix-like chink which lies transversely between them exhibits, under the magnifying glass, two small yellowish striæ, which are afterwards discovered to be the rudiments of the Meibomian glands. Numerous bloodvessels supply the eyelids; these come partly from the auricular, and partly from the labial and nasal trunks." Our author has had frequent opportunities of confirming the accuracy of the above description, given by Ammon; and we shall find that, by attending to the different stages of the normal developement of the eyelids, we are furnished with a key to the right explanation of many of their congenital malformations, and to a more correct understanding of their minute anatomy. We can thus, for example, ascertain to a certainty, that the conjunctiva is expanded over the whole anterior surface of the eyeball, at first quite loosely, but gradually more and more intimately; and an unanswerable proof is afforded, at the same time, against the doctrine of Rudolphi and of others, that the conjunctiva is analogous to the epidermis. Its true nature is intermediate between a serous and a mucous membrane; in the earliest stages of its formation, it would seem to be a shut sac, and only after the inter-palpebral cleft is completed, to become a mucous membrane.

For the purpose of shewing these phenomena, it is necessary to cut away two lateral halves of the lids, so that the ball of the eye is seen from the side; if this be done, we display a sacciform envelope, whose posterior surface covers the bulb, and whose anterior one is reflected upon the inner surface of the eyelids. By means of it, the eyelids and eyeball are joined together, but its connexion with the latter is much more close than with the former. It contains a transparent watery fluid, which thus prevents any agglutination of the lids with the eyeball. Such is Ammon's account of the early formation of the conjunctiva; and if the investigations of succeeding enquirers accord with it, we are bound to accede to the conclusion which we have just now mentioned has been arrived at by the celebrated anatomist now mentioned, viz. that the conjunctiva is at first a serous, and only subsequently a mucous membrane.

But to return to the subject of the eye-lids; we have to state that several examples of their arrested developement are narrated by Dr. Seiler, and that all these harmonize most beautifully with the descriptions of their early formation in the embryo. The fourth figure of his engraving represents on a large scale, in a young infant, the normal state of the eye-lids of a three-months' embryo; they are short and small, and cover only very imperfectly the extremely projecting ball, which is thus not unlike to an acorn within its cup. But not only have the lids been arrested in their ulterior developement, but also some of the other accessory parts of the eye; thus, the muscles are yet most imperfect and indistinct,

for the organ seems to be surrounded merely with a white fibrous covering, just as we find it in a three-months' embryo, and there is no obvious separation into individual bundles. Dr. Seiler takes this opportunity of expressing his dissent from the statement made some years ago, in the Journal der Chirurgie, by his eminent friend Walther, one of the editors, that the eyelids originally, or primitively, adhere to the anterior surface of the ball, and, therefore, that congenital anchyloblepharon is referable to a pre-existent normal condition of the parts. This error has arisen from his having mistaken the delicate sacciform covering, which we have shewn to be the commencement of the conjunctiva, for rudimentary palpebræ; and also from his not distinguishing properly a mere conglutination of the palpebral edges with their actual concretion.

(*To be continued in next Number.*)

## IX.

### Considerations on some of the Alterations which the Blood undergoes in different diseases. By *M. Roche.*

[Journ. Hebdom.]

This curious subject of pathology has of late, and especially for the last quarter of a century, been much overlooked; but although savouring, as it does, of the long-exploded doctrines of the ancient humorism, we think that we can perceive signs of an approaching more zealous investigation of its phenomena. M. Lecanu has shewn that the blood of icteric patients contains the yellow and blue colouring principles of the bile, and that there is sometimes a simultaneous deficiency in the quantity of the proper red colouring matter. MM. Prevost and Dumas have discovered urea in the blood of animals, from which the kidneys were extirpated, and we may rationally infer that the same chemical changes may ensue, when these organs become much disorganised in texture from disease. Many poisonous substances, also, introduced into the circulation, may be quickly detected in the urine. M. Mondezert, in some late researches on the serum of the blood, has arrived at the conclusion, that the inflammatory crust of the blood in certain diseases is derived from the serum, and not from the crassamentum, and that, therefore, it is probably formed by concreted albumen.

The physical characters of blood which may have undergone some important changes, are often little calculated to throw light on the specific nature of these changes. Sometimes, indeed, it is more fluid than natural, and is, as it were, dissolved; at other times it is more consistent, or is grumous, or has a pitchy character, or is black, greenish, decomposed, or, again, it may have too much serum, or too much fibrine; but, as yet, these changes, however important, have not hitherto been sufficiently examined in their relations to particular diseased conditions, to enable us to apply our knowledge to any purposes of therapeutics. As a general remark, the blood is fibrinous in the phlegmasiæ—serous in chlorosis and in anæmia—black and grumous in scurvy—pitchy and uncoagulable in the pestilential cholera, and deficient in animal matter in genuine diabetes.

The causes of the changes of the blood are generally referable to the absorption of miasmatous or poisonous agents, which may arise either from

the decomposition of animal and vegetable substances in a state of putrefaction, or from individuals affected with contagious diseases; 2dly, of purulent or putrid matters, or of specific viruses, whether of an animal, vegetable, or mineral nature; and, thirdly and lastly, of crude and ill-prepared chyle, in consequence of unsoundness or insufficiency of the food. Now, in the study of these alterations, the first general observation we make is, that some of them consist simply in the presence of a noxious agent in the circulating mass, while, in others, there is a positive modification induced in its chemical composition. It is, therefore, of importance to distinguish these two modes of morbid or abnormal change in our present investigation. We have been taught by the results of numerous experiments to believe, that the injection into the veins of putrid matters, derived from the decomposition of animal and vegetable matters, gives rise to diseases perfectly analogous to those induced by the absorption of certain miasmata; also, that the direct injection of pus into the blood is followed by symptoms very similar to those which arise from its spontaneous absorption from the surface of wounds, abscesses, and so forth, especially when these have become suddenly dried up; that the inoculation of the putrid sanies of a carbuncular or hospital gangrenous ulcer, will cause the development both of the local and of the constitutional symptoms of these kinds of sore; and, lastly, that the introduction of almost all the very active medicinal or poisonous drugs into the circulation, whether they be directly injected, or permitted to be slowly absorbed from the skin, induces nearly the same effects as follow their being admitted into the stomach. But all these facts, however curious, interesting, and instructive, do not make us acquainted with a single direct alteration of the blood; they do not even prove that this fluid undergoes any change in its own composition; and, correctly speaking, the only logical inference which may be drawn from them is, that the blood is the vehicle for the reception and transmission of extraneous matters, howsoever they have become mixed with it. This view of the subject is corroborated by the observation, that the greater number of the active substances thus introduced into the blood become eliminated, "en nature," at some one of the excretory organs; and that, if the dose or quantity be small, and not very potent, their effects cease, and they become gradually thrown off from the system: from this we may conclude, that the poison or virus was only mixed, and not incorporated or assimilated with the blood; and, consequently, that this fluid did not experience any decided chemical change in its composition. Nevertheless, while we admit that, in those diseases which are induced by the absorption or injection of noxious substances into the blood, there are no positive proofs of any consequent alteration (although the contrary is not ascertained, viz. that no alteration does actually take place,) it is still quite proper to arrange among the diseases of the blood, all such as exhibit analogous phenomena with those which we can at will induce in our experiments. The observation of pathological facts, and a cautious, yet unfettered, interpretation of the data which they afford, are calculated to throw more light upon the question of the changes of the blood, than has hitherto been afforded by examining the physical and chemical characters, or even by direct physiological experiments. This last method of investigation lends, however, upon all occasions, a valuable assistance to clinical enquiries, and there is not, perhaps, any subject which

it has illustrated so satisfactorily as that which we are at present considering.

In all diseases which become developed in the midst of infected foci, such as marsh intermittent fevers, typhus, yellow fever, the plague, and the pestilential cholera, the primary element, or first link in the chain of the disease, is a change or infection of the circulating mass. That marsh fevers are owing to the agency of certain miasms which are generated by the decomposition of wet putrefying animal and vegetable substances, few will be disposed to doubt. Chemistry indeed has hitherto failed in disclosing to us the nature of these miasms; but this we know, that by exposing animals to the effect of water, which has been charged with them, we may produce at will intermittent fevers, [Rigaud de l'Isle;] and often it is only necessary to withdraw them from the infected medium, for the morbid effects speedily to cease. We are therefore quite justified in asserting that miasms are the direct cause of marsh fevers. Typhus also is often traceable to the operation of a similar cause;—thus we see it generated in close chambers, where too many are confined, and, upon many occasions at least, it is obviously propagated by emanations from a sick to a healthy person. It is easy to prove that the principal cause of the yellow fever exists in the very places, where it is known to be most frequent and fatal, and that in truth it arises from a miasm generated in these localities. As to the plague, all authors agree in attributing to it an analogous origin; and its unequivocally communicable character confirms this etiology; and with respect to the cholera, we think that we may very safely and fairly affirm, that it is the result or effect of some unknown principle, developed in, or perhaps only diffused through, the atmosphere. Now there is but one way or mode of introduction into the body of all these morbific agents, and that is by absorption;—they become blended in truth with the blood, and their first effect is to induce some change or other in its properties, either by a simple admixture with its constituents, or by a direct action upon its composition.

The study of the symptomatology of these diseases illustrates and confirms the etiological speculations which we have briefly noticed. They all exhibit in the same order, although in very different degress, a succession of morbid phenomena or phases, which seem to correspond exactly to the development of the morbific principle within our bodies, from the period of its introduction to that of its elimination and expulsion. A general malaise is usually the earliest symptom, and indicates the absorption of the poison into the system: then follows certain nervous feelings, such as shiverings, sensation of cold all over the surface, head-ache, delirium, cramps, and other convulsive movements; proceeding probably from the poison having been conveyed by the circulating torrent to the principal nervous centres, which, according as the impression made upon them is of an irritating or of a benumbing nature, give rise to symptoms either of excitement, or of stupor, or possibly of a blending of the two. After a lapse of time, which must necessarily vary with the excitability of the patient, and with the dose and activity of the operating poison, there supervene symptoms of general disturbance, such as change of pulse, heat of skin, intense thirst, altered urine, starting of the tendons, restlessness, and anxiety; by the occurrence of which phenomena, we infer that the miasm has been brought in contact with all the organs of the body, and that they have begun to react against its deleterious

effects. The symptoms of this stage, viz. that of reaction, vary according to the nature of the morbific cause; and as different poisons exhibit great diversity in their special, and what we may call their characteristic mode of destroying life, these symptoms to which we allude differ in each case, as well in respect of the order of their succession, as of their severity and complication. When the reaction is violent, either simple synocha, or synocha associated with a local inflammation, is developed. Lastly, the fourth stage or set of symptoms set in; and this is characterised by profuse sweats, or by vomitings, purging, the discharge of turbid and offensive urine, by a jaundiced state of the skin, an eruption of petechiæ, miliary vesicles, or of external glandular phlegmons, and sometimes of local mortifications. Every appearance at this period attests an effort of the system to eliminate and carry off the morbific principle, by some of the great emunctories, as the skin, gastro-intestinal, or urinary passages. Now if we attend to the symptoms which those animals which are directly subjected in our experiments to the operation of a poison exhibit, we find that they follow nearly the same succession as we have just now described;—a general malaise immediately, or very quickly follows the injection of any noxious substance into the veins; to this malaise succeeds the nervous disturbance; this again is speedily associated with a general constitutional reaction; and then the system tries to get rid of the poison by vomiting, purging, or sweating. It is indeed true, that in numerous cases of poisoning, these stages or successive series of phenomena are obscurely marked, and cannot be very satisfactorily distinguished from each other; or that the disease may be suddenly cut short, or may prove fatal after the formation of the first or the second set of symptoms;—if the reaction be very violent and the intoxication be feeble, the evil aborts from its commencement; and, on the contrary, when the reaction is feeble, and the intoxication is severe, death may very speedily or even instantaneously follow. Experience supplies us with numerous illustrative examples of both these conditions, and of various intermediate shades, verging more or less to one or to the other tableau which we have described; but still, as a general remark, we may repeat that the common or ordinary march of all such diseases as are induced by miasmata and other poisonous agents, is progressive from one stage to another, in the mode explained above. Now an attentive examination of this subject infallibly leads us to anticipate an infected or altered state of the blood; and the circumstance of the communicability of most of these maladies renders our suspicions still more probable; but as it may be objected to this argument that we are assuming what has not been proved, and is not admitted by many physicians, viz. the property of propagating and transmitting themselves from one person to another, it will be proper to consider the force of the objection, before we proceed further in our inquiries. By the term "contagion," we mean that feature or character of certain diseases to multiply themselves by being communicable, either by means of direct contact, or through the medium of the atmosphere conveying the effluvia from one body to another. At first sight, nothing might seem more easy of solution than the question, what diseases are contagious and what are not; and yet few subjects of pathology have been more keenly disputed. Every one, it is true, is agreed as to the contagious properties of the itch, syphilis, small-pox, and hydrophobia; because these diseases may be induced at will by direct inoculation

of their specific poisons, and we have daily proof of such occurrences. The proofs, too, of the contagion of measles, of scarlatina, and of hooping-cough, are by most considered to be quite conclusive; but very discordant are the sentiments of authors as to the communicable property of miasmatic diseases, putting, as a matter of course, out of the question pure intermittent fevers, which have very rarely been considered as directly contagious. Many of the best observers furnish us with numerous examples, to prove that typhus, yellow fever, the plague, and also the pestilential cholera, are communicable, at least occasionally; but their conclusions have been gainsayed by an equal host of authorities, and these, too, equally worthy of credit. The opinion to which we have been led by a rigorous comparison of what has been adduced by both parties is, that these last-mentioned diseases are not absolutely, essentially, and invariably contagious, but that, under some circumstances, they appear to be so, while, under others, they exhibit no such character. There has been more discrepancy of sentiment in reference to the contagion of yellow fever and of cholera, than of the plague and of typhus; indeed, with respect to these latter two, most physicians are inclined to admit that they are occasionally, at least, if not always, communicable; and this very admission strongly predisposes us to believe, that the yellow fever and cholera may also be so, from the simple circumstance of the striking analogy which all these four maladies exhibit in many of their features; such as their origin from some atmospheric cause, and the course or march of their symptoms; it is from these very characters of resemblance, that we are induced to suppose that there is a similar analogy in their effects. The results of physiological experiments add strength and probability to this supposition—they teach us that all substances injected into the veins, or absorbed from any surfaces, pass unchanged, "en nature," into the circulating mass—that they impregnate, "en nature," every organ, and that, finally, they become eliminated, "en nature," by some of the leading emunctories. Analogy, facts, and reasoning shew that typhus, yellow fever, the plague, and the cholera, are produced by the absorption of some principle or morbific agent, differing probably in each of these maladies, diffused through the atmosphere. Now this agent, like camphor, phosphorus, alcohol, &c. may be supposed to pass, "en nature," into the blood, and to be expelled "en nature," if the constitution be sufficient for the effort; and some of the phenomena of the cholera render this supposition very probable; all the excretions of a patient labouring under this disease, as the cutaneous and pulmonary transpirations, the matters rejected by vomiting and by stool, have a similar and very characteristic odour, and the two last have exactly the same appearance. A similar remark is applicable to some of the other miasmatic maladies.

If, then, it be actually the exciting agent of the disease which makes its escape, "en nature," through one or through several of the excretory organs, we can easily understand how this, when absorbed into a healthy constitution, may give rise in it to the repetition of the same effect which had already taken place in another constitution. The effect is not, indeed, inevitable and constant, but is partly dependant upon a multitude of accessory circumstances, such as the existing temperature, the close or free state of the atmosphere, the constitutional condition of those exposed to the miasm, and the activity or virulence of the miasm itself. From all these considerations

it follows that theory might lead one to admit the possibility of a contagious property in all miasmatic diseases, including even marsh fevers, and we shall find that numerous facts favour the idea; but, before adverting particularly to these, we should observe, en passant, that the contagionists themselves have grievously injured their own cause, by assuming that, if a disease can be proved to be at any time, and under any circumstances, communicable, it must be absolutely, essentially, and invariably so upon all occasions; and by being, in consequence of this speculative fatalism, too ready to admit the correctness of all facts which seemed favourable to their doctrines. However this may be, if we have succeeded in establishing that all miasmatic diseases may propagate themselves by contagion, we shall have added another argument to what we have above said respecting their nature, to wit; that they all occasion an infection or change in the condition of the circulating mass; and this was the chief object which we had in view. We are well aware that many will immediately impugn such a conclusion, and will tell us that intermittent fevers, typhus, the yellow fever, the plague, and the pestilential cholera have often, and do often, appear in sporadic cases, and under circumstances where little chance of any miasmatic taint could possibly exist, and, as a logical corollary from these data, they state that, if any of these maladies ever arise spontaneously, and without any miasmatic cause, we are bound to suppose that they may upon all occasions do so; and that, therefore, the admission of any such morbific principle is perfectly gratuitous and unwarranted. But let us not be led astray by the apparent force of a syllogism; let us remember that, when a disease does present itself only sporadically, we are not justified in thence inferring that it must have arisen spontaneously, or, more correctly speaking, fortuitously, that is, without the operation of its ordinary exciting cause. Is it not conceivable that miasms, which are generally admitted to be the primary causes of most epidemics on a large scale, may occasionally be generated only sparingly and locally, and thus give rise to insulated cases of the diseases? As a mere question of probabilities, we think that there can be but little dispute, that the doctrine which maintains that all cases, the insulated as well as the epidemic, of what we have designated miasmatic diseases, arise solely and exclusively from the operation of some external morbific principle, is more consistent with facts and with theoretical reasoning than the opposite doctrine, that they are all, and upon all occasions, essentially independent of any such principle or agent.

By far the greater number of cases of poisoning belong to the class of infections or alterations of the blood. It may possibly be objected, that the effects of the caustic poisons, or of the strong acids and alkalis, cannot be referred to such a catalogue. We admit the truth of the objection; but the force of it can scarcely be said to reach our position, for it is quite incorrect to include the effects of these virulent chemical agents, under the term of poisoning or intoxication, seeing that they act only as local caustics or corrosives, and that the constitutional disturbance which quickly supervenes to their being swallowed is owing, not to the absorption of any portion of them into the blood, but merely from the intimate and co-operating sympathy of almost every organ with the stomach and intestines. Very different are the constitutional effects of a poisonous dose of opium, of aconite, or even of arsenic; and yet this last agent agrees so far with the

acids and alkalis, in being a virulent corrosive. In many cases of genuine poisoning, we can discover in the blood the particular poison which we administered to the subject of our experiments; and the successive series of symptoms very nearly coincide with the march or course of a miasmatic disease: first of all, there is the stage which indicates the absorption of the poison—then follows that of its being brought in contact with the nervous centres—next is the stage of the sanguineous re-action, and, lastly, that of the elimination and expulsion of the peccant cause.

Another set of diseases which we arrange under the head of alterations of the blood, are small-pox, measles, scarlatina, hooping-cough, hydrophobia, the effects of bites of poisonous animals, and some will add, syphilis, scabies, &c. As to the first six, there can be but little difference of opinion on the correctness of our classification, since in all of them there occurs an evident inoculation of a virus, an absorption of this virus, the consequent developement of constitutional symptoms (among which are almost always present, certain disturbances of the nervous functions, arising, as we suppose, from the direct contact of the virus with the nervous centres,) and finally an eliminating effort, rendered apparent by cutaneous eruptions, by sweating, salivation, &c. Whenever this quadruple succession of stages is observed, we are inclined to suppose, that the disease depends upon some poisonous agent received into the system, and upon a consequent change of some sort or another, induced in the circulating mass. The particular physiognomy of the case is determined by the nature of the morbific principle, just in the same way as we observe to take place in cases of poisoning, whose symptoms though they may have a general resemblance, vary according to the poison which has been administered. But syphilis and scabies have no other features which ally them to the preceding diseases, except their contagious property. Neither of them exhibit those symptoms which we have pointed out as indicating an infection of the blood; and from this negative character alone, we conclude, that they ought not to be classed along with the others. Scabies appears to be limited to the cutaneous tissue; and syphilis has probably its seat in the lymphatic system; but this is only conjectural.

Important therapeutic results may be derived, we think, from our manner of contemplating the alterations of the blood, when induced by infection, or intoxication of its mass. The first indication in their treatment ought to be to relieve, as far as it is possible, the system of the presence of the morbific matter; this is to be done by bleeding, by vomiting and purging, and by exciting the perspiratory discharge: by these means we shall sometimes succeed in evacuating the greater part of the noxious matter, and the effect of what remains behind is in consequence enfeebled and modified. The second indication is to obviate and neutralize the immediate specific operation of the poison: the third is to combat the effects produced by it upon the principal organs, whether these effects be sthenic, asthenic, or of an intermediate character, by different remedies suited to the nature of each case; and finally we ought to encourage and favour its expulsion from the system. We must never confine our treatment merely to the fulfilment of one of these indications, to the exclusion of the others; and the circumstance of the same treatment being not applicable to all the stages of the case, is one reason among others, that very different, or even very opposite indications

have been approved of and practised by equally respectable authorities. There is only one truly preservative means, against those diseases which depend upon an infection of the blood; and that is, the removal from the locality in which they are generated;—all other hygienic precautions are often quite impotent unless this be done. Even when the disease has actually commenced, its virulence may be considerably mitigated if the focus of infection be left. Attention, therefore, to this rule must be always of great importance until the happy discovery is made of special antidotes or neutralising remedies against each miasmatic disease.

Hitherto we have been engaged with those cases only of infection of the blood which are induced by miasms, and by animal, vegetable, or mineral poisons; and we have found that, although it may reasonably be supposed that in these intoxications the composition of the circulating mass undergoes certain but yet unknown modifications, it must be confessed that the supposition has not yet been realised, or even sufficiently examined by experimental research. It remains therefore for us to allude to those physical and chemical changes of the blood which have been and may be daily observed, and to ascertain in what diseases these changes take place. When a disease is slowly developed, under the influence of causes, which seriously affect the function of nutrition, and when it repeats, as it were, itself in several organs or tissues, and thus becomes an evil affecting the whole system, it is probable that it has its source in some alteration of one of the two fluids diffused over the whole body; to wit, either of the lymph or of the blood. Let us consider for a moment how much the human constitution is affected by those hygienic circumstances amid which they live; and we can have no difficulty in understanding the reason why an excess or exaggeration of any of these may, in the course of time, bring on certain diseases, and why these diseases must necessarily commence by an alteration of the fluids.

If the privation of the sun's light, or exposure to a cold damp climate, or a deficient or unwholesome food, or want of exercise, and excess of sleep, have the effect of blanching the human body, and of rendering it feeble and apathic, in consequence of the white juices becoming superabundant, and of the red globules of the blood becoming too scanty, it must be evident that the union of all these health-destroying agencies, or an extreme degree of any one of them, must give rise to diseases characterised by a poor thin state of the blood, by the predominance of the lymphatic juices, a deficiency of sensibility, and an imperfection of nutrition; and that these diseases will be slow, chronic, little affected by remedial measures, and curable, rather by the adoption of such hygienic rules as are opposed to those which were the exciting or morbific causes than by any exclusively medical treatment. The chief indication, in short, in such cases, is to "remake" the nutrition of all the tissues of the body. In the list of diseases which are referable to the class now described, we may enumerate the different forms of scrofula, also phthisis pulmonalis, and all tubercular affections. Perhaps, however, we are now advancing too far upon debatable, or at least uncertain ground; for it must be acknowledged that we do not yet know whether the blood or whether the lymph be primarily and chiefly affected in these diseases; and besides that they will not unfrequently appear even under the most favorable hygienic circumstances. But as the solids are always simultaneously more or less changed in such cases, it may be as well, at least for the pre-

sent, to exclude these cases from that division of diseases which depend upon, or are necessarily associated with, an altered state of the blood; for as yet we but most imperfectly know whether the changes of this vital fluid are primary and causal, or secondary and consecutive. We have alluded to the effects of those agents which deteriorate, and, as it were, dilute the condition of the blood; let us now, for a moment, consider the oppositely-acting agents. Suppose that a man be exposed to a burning sun, that his appetite be keen and vigorous, that he breathes a pure mountain air, that he sleeps moderately, and takes a due proportion of active corporeal exertion, his blood will in all probability become more rich with red globules, and will be consequently more stimulating, the circulation will become more brisk, the skin will assume a more animated hue, and all the sensibilities, both of mind and body, will be exalted. The general character of the disease, with which he will be affected, will be those dependant upon plethora, such as violent fevers, inflammations, and congestions; and their course will generally be rapid, requiring for their arrest and powerful depletion, and every measure which may diminish the quantity, and impair the energy of the morbid stimulus. But in this, and in all similar cases, an exclusively humoral view of the malady will be incorrect and fallacious; for the existing alterations of the blood are in a manner effaced or overpowered by the predominant influence, which the changes in the solids almost always assume at the same time. We are not however to lose sight of the first set altogether. We have already alluded to the important part it plays in the production of certain pyrexial diseases, especially in hæmoptysis, rheumatism, and gout, in which the fluids are unquestionably often as much at fault as the solids. Still we ought not to attend to one to the exclusion of the other; the influence of both must be duly considered alike in our reasonings upon the etiology and in our treatment of these maladies.

What has been said above on the subject of tuberculous disease, is equally applicable to scorbutus and hæmicelanosis:—they are slowly and very gradually developed; the causes which produce them modify step by step the functions of nutrition; they involve almost every tissue of the body; and they are influenced more by hygienic than by therapeutic measures. But still the nutritive functions are less seriously affected in these diseases than in such as are truly tubercular; and hence the main indication of treatment is rather to modify than to remake them. We are yet quite in the dark as to the real nature of the alterations in the state of the blood, which constitute, or at least invariably accompany them; but to judge by its physical characters, we have reason to believe that it has lost in some degree the force of that affinity which keeps its molecules closely together.

From the preceding train of observation we are led to deduce some interesting conclusions; and one of the most instructive of these is the twofold classification of all blood-alteration diseases. In the first, we comprise those affections which result from the positive introduction into the system either of an obvious poison, whether that be of an animal, vegetable, or mineral nature; or of the morbific principle of miasms, whether the introduction be effected by injection into the veins, by inoculation, by cutaneous or pulmonary absorption; and in the second are included all the chronic alterations of the blood, in which the chemical composition of this fluid is evidently affected, and which arise chiefly from the influence of certain

hygienic conditions, involving and modifying, in a particular degree, the functions of assimilation and of nutrition.

The preceding observations from the pen of M. Roche, published in our valuable cotemporary, deserve not only the perusal, but the study of all our readers. Every calm observer of medical science must have been long satisfied, that the pathological doctrines of the solidists, or mere anatomists, have been of late becoming more and more unstable, and have been forced to abate not a little of that predominant and exclusive importance, which some years ago were almost universally conceded to them. It is, indeed, not very creditable, either to the truth of medical science or the discretion of its professors, that any particular system of tenets should be unhesitatingly and submissively received, in reference to a machine so curiously and complexly put together as that of the animal body. We venture to predict, that no single or exclusive general doctrine of pathology ever will, or can be altogether and universally true; no matter whether the doctrine refers to the solids or fluids of the living system, or whether it is based upon chemical, mechanical, or electric foundations. A medical philosopher must ever bear in mind, that no one set of phenomena can ever, with propriety, be admitted as the only data or elements for sound pathological reasoning, to the neglect of all the others. It is for this reason that our own mind has always been impressed with the conviction, that the anatomical pathologists of the last 30 years have taken a partial and limited view of the science of disease, and that the edifice which they have reared with so much laudable zeal would lose strength and stability with age, and, although never entirely forgotten, would in course of time be but a portion of a mightier structure, which should be based upon, not one, but a multitude of foundations.—REV.

## X.

## FACTORY COMMISSION.

1. INSTRUCTIONS FROM THE CENTRAL BOARD OF FACTORY COMMISSIONERS TO THE DISTRICT MEDICAL COMMISSIONERS.
2. REPORTS BY THE MEDICAL COMMISSIONERS, Nos. 1, 2, 3, 4.

COULD the production of sugar have been continued in the West Indies, and that of calico at home, without attracting the notice of humanity to the means employed—or were there no medium existing through which the horrors of these means could be presented to the public eye, many a revolving year would have passed ere we should have heard (if, indeed, we ever should) of the Slave-Trade-Abolition Bill, or the appointment of a Factory Commission. The Treasury would have gone on annually to receive, and pour into the lap of its thousand dependants, the golden contributions of these abundant springs of national wealth; Ministers would have boasted in Parliament, nay, Majesty itself would have proclaimed from the throne, the progressive prosperity of our colonies and manufactories, without, however, wounding public or individual sensibility, by alluding to the

amount of human suffering necessary to furnish the materials for so bright a picture. But the press was there, that irresistible engine of public opinion—that palladium of social liberty and social advancement—that mighty power, unknown to antiquity, which ensures freedom from oppression wherever it is itself free. The mild, impressive pleadings of the pure philanthropist, the hypocritical groans of the saintly sinner, the oratory of the selfish agitator, all found a fertile theme in the wrongs of the expatriated colonial slave, or of the overworked factory child nearer home—all found a ready organ in the public press to melt their complainings into unison, and to make them heard wherever civilized man is found. Forthwith, the greedy proprietor, the calculating financier, the cold-blooded Malthusian, were compelled to yield to the universal ebullition of the best of human feelings; and the immediate consequence was, the emancipation of our colonial slaves—the Twenty-millions-Bill, and (what especially forms the subject of the present article) the legislative measures recently adopted, protective of infant health and infant labour.

Discussion as to the commercial policy of these measures, the influence which they may exercise upon the morals, the wealth, and the peace of the country, would be foreign to the purposes of our Journal. We hold ourselves bound to watch the progress of medical science only, and to lay before the profession, from time to time, every new and interesting fact with which that science is concerned. In the present instance, knowing that a Royal Commission was issued on the 19th of April, 1833, appointing, with others, five medical gentlemen of eminence to investigate the effects of factory labour upon the health of those so employed, but more particularly upon that of children, it becomes our duty to remark upon the organization, the mode of conducting, and the Reports of that Commission.

### ORGANIZATION AND DISTRIBUTION OF THE COMMISSION.

Four districts having been traced out, comprehending the seats of the principal branches of manufacture in which any large proportion of infant labour is employed, the ten civil, and five medical gentlemen composing the general Factory Commission were divided into five lesser commissions, each having one medical, and two civil members, as follows:—

"A Central Commission, or Board, composed of a chairman, Mr. Tooke, distinguished as a writer on currency, and as an enlightened political economist —Mr. Chadwick, already a most efficient member of the Poor-Law Commission —Dr. Thomas Southwood Smith, an eminent physiologist, and author of an Essay on Fever, remarkable for the talent and research it displays. This Commission held its sittings in Whitehall Yard, never quitted London, framed instructions for the District Commissioners, and prepared the general report.

2. The Commission for Scotland and the North of Ireland, consisting of Mr. Stuart, the accurate and independent author of Travels in America—of Mr. Mackintosh, a young Barrister, son of the late eminent orator and statesman of that name, a large inheritor of his father's high talents and liberal views—and of Sir David Barry, author of Experiments on the Circulation of the Blood, and member of the late Central Board of Health.

3. The Medical Commissioner for the North-eastern District of England, was Dr. Loudon of Leamington, and with him were united Messrs. Drinkwater and Power.

4. The Lancashire District fell to the lot of Dr. Bisset Hawkins, author of "Medical Statistics," with Mr. Cowell and Mr. Tufnell.

5. Dr. Woolriche, Inspector General of Army Hospitals, was named for the

Western District, having for his collaborateurs Mr. Spencer and Mr. Leonard Horner, whose name is so intimately connected with the early progress of the London University.

Although, by the fact of having appointed a Factory Commission at all, Ministers incurred much obloquy, all of which they might have avoided by legislating at once, upon the evidence adduced by Lord Ashley and Mr. Sadler; yet there can now be very little doubt, that in waiting for the results of local inquiry they pursued the wisest and fairest course, more especially as they had that inquiry conducted by disinterested professional men, who spared no pains to come at the truth.

### INSTRUCTIONS.

The only instruction received by the Central Board, independently of the terms of the Commission itself, was a verbal intimation, that the inquiry was expected to be "into the whole truth respecting the employment of children in factories." The detailed instructions issued by this Board to the District Medical Commissioners, occupying 35 quarto pages, with numerous and complicated tables and queries to be filled up and answered, must be considered as having emanated from the Central Medical Commissioner. He alone, therefore, must abide the consequences of their examination. Whatever faults or perfections these instructions, as a whole, may be found to possess, they certainly are open to the following objections:—

1st. The utter impossibility of executing certain portions of them.

2dly. The evident tendency of these portions to bring down obloquy and ridicule on the whole Commission, and on the medical profession generally. We allude to the tabular questions at pages 24 and 26 of the Medical Instructions; of which the following are examples:—

"Quest. 8. Was your first child born within one year of your marriage?

"10. How many miscarriages? in the first three months—in the next three months."——"In the last three months of pregnancy."

"11. How many of the births were difficult cases; requiring instruments—not requiring instruments?"

"12. What is the name of the father of your child or children?"

"*State how many weeks in each of the following years of age each child has been sick—1st year, 2d year, 3d year, 4th year, 5th year.*"

When we learn that these and many other such questions were to be put, not only to all married women employed in factories, but likewise to at least an equal number of married women not so employed; that a table constructed upon the answers was to be filled up for each woman, and for each child whether dead or living; and that all this, besides the really useful duties of the medical gentlemen, was to be executed between the 24th of April and the end of June; there can be no exaggeration in pronouncing the task impossible, and the labour and expense useless, which was bestowed on its construction. Indeed, Dr. Smith himself says to the District Medical Commissioners, at p. 16 of his Instructions,—"That in the short space of time allotted to the execution of the Commission, you should be able, by your own personal inquiries, to obtain the information now sought for, is impossible;" and then suggests the following plan for its accomplishment. "In several of the large cities which you will visit there are medical schools." "A few medical pupils, two by two, taking a street and making the inquiries from house to house, would speedily and effectually accomplish the task. In the hope that this suggestion may be carried into effect the Tables of Inquiries to be made of married women have been made up into books containing *fifty each*, which may be distributed to each medical man, or medical student, in order that he may fill up the set."

What are we to say to the medical ethics of boys thus employed to cross-examine matrons upon such points?

So glaring was the unfitness of these questions to the purposes of the inquiry, and so strongly did they outrage public feeling at the time, that the eulogist of the Government felt himself called upon to visit them with a deprecating sentence or two in his eloquent expose of "What have the Ministers done?" These are the questions also which, with their tables attached, were printed and issued to the District Commissioners in such prodigious masses, that the post in Scotland, as we learn from high authority, absolutely broke down under their weight, and thereby interrupted the correspondence of the country for several hours. But after all the best comment upon these impracticable and purely theoretical instructions is, that of the cartloads of blank printed tables and queries transmitted to the District Medical Commissioners, not even one solitary, filled up specimen appears in any of the Reports.

This attempt to tack on a theoretical scheme of general statistics upon a specific, practical investigation was ill-judged, to say the least of it, and might have been fatal to the success of the Commission. But on such occasions as these, the proper objects of inquiry are too plain to be mistaken, and indeed almost all instructions are fortunately compressible into a small compass; whatever may be the extent of paper over which they are spread. In the present case all that was essential in the thirty-five pages already mentioned, may be found in the three following sentences or headings, which might with advantage have been condensed into one. The Medical commissioners are told to investigate—

1. "The actual condition of the manufacturing population (including children and adults) relative to health and disease." p. 7.
2. "The present condition of the manufacturing population (including children and adults) compared with its condition at former periods." 12.
3. "Comparative state of the children of the same age and class, in the same district, not factory children." 13.

The object which the locomotive Commissioners felt themselves obliged to keep in view, and that to which the terms of their commission expressly bound them was, "to collect information as to the employment of children in factories, and as to the propriety of curtailing their hours of labour." This brief instruction inculcates, so far as the Medical Commissioners were concerned, the necessity of ascertaining the effects of factory-labour upon the health and growth of children so employed, with the view of suggesting remedies for such evils and abuses as might be found to exist in the present mode of conducting such labour.

We shall now take our leave of the official instructions, and proceed to examine the methods actually adopted by each of the four District Medical Commissioners, in conducting their inquiries, with the facts elicited by these gentlemen, as set forth in their respective Reports.

## MODE OF CONDUCTING THE INQUIRY—REPORTS OF THE MEDICAL COMMISSIONERS.

At the head of the Medical Reports stands that of Sir David Barry. This gentleman appears not only to have spared no labour to obtain such information as might lead him to form just conclusions for himself, but to have placed that information before the Central Board in such circumstantial abundance, and in such perspicuous order as to enable them to judge wether his conclusions were or were not fairly deduced from the facts of the investigation. He first designates the individual factory, and then describes its locality, neighbourhood, elevation, and form of the buildings; next the interior; the height, temperature and ventilation of the working rooms; the drainage, state of cleanliness, and general atmosphere; sanitary precautions adopted from time to time, and the improvements made, tending to promote health, since the establishment of the factory. The next heads we find are clothing; its change on quitting the factory

in Winter—hours of beginning, remitting, and leaving off work each day—cleansing machinery—holidays in the year—Sunday's employment of time—moral instruction—food and drink at and between meals—health of operatives generally—appearance—branch of manufactory least healthful—annual mortality (average for ten years)—usual diseases—what months most sickly—cholera (cases, deaths)—accidents from machinery—abortions—medical assistance. Next comes the classification of the operatives of each mill, under the following heads. Total number—males, females—under 15, above 15—married—single—Irish—natives. We have then "the individual, personal examinations of mill-workers," which Sir D. thinks ought to form the chief object of the Medical Commissioner—description of and sanitary differences between the various kinds of factory employment—comparison with other working classes, such as hand-loom weavers and colliers, which are also carefully investigated and described.

The indefatigable zeal and labour brought to bear upon the inquiry in the northern district were very remarkable. Not only do we find the general headings already mentioned carefully filled up; but the individual workers examined for physical defects, much after the fashion of military recruits; and lest any attempt should be made to keep the deformed or the maimed out of sight, the oldest overlookers and workers were publicly sworn, as to whether any, or how many such persons were actually at the time, or had recently been borne on the books of the establishment—and also whether they knew of any individual having become deformed during their employment at factory-work, no matter from what cause.

We cannot conceive how truth could be sought for in such a question with a fairer prospect of impartial results than by the method just described. The whole Report occupies 76 folio pages. Many of the facts stated are highly curious in themselves, and must prove so interesting to the medical reader, that we shall make no apology for quoting a few of them in the words of the original. In the Medical Report on Mr. Craig's flax spinning mill, at Preston Holme, employing 150 workers, 103 of whom were under 18, we find the following:—

"The diet consists, for breakfast at nine o'clock, of porridge, and milk when the latter is plenty; for dinner, at half past two o'clock, potatoes, broth, bacon, garden stuff—butcher's meat *seldom;* for supper, at nine o'clock, porridge or broth; and for drink at and between meals, water.

The health of the operatives in general appears excellent. Some few look rather delicate, but seem to work cheerfully. No foul tongues. Heard no coughing during several hours passed in working rooms. The appearance of by far the greater number was healthful, robust, fully grown for age. Did not see even one case of distortion or narrow pelvis. Many of the girls were beautifully formed, who had been from ten years to maturity in the mill. The branches of manufactory least healthful are the carding and heckling departments. No death has occurred among the workpeople during the last three years. The spring months are the most sickly. The usual diseases are colds and the ordinary diseases of childhood. Informed by Dr. Lucas, who happened to come to the village to see a patient, that the epidemics of the country, such as cholera, influenza, and scarlatina now prevailing generally, are milder in Preston Holme, than in the neighbouring collier villages. There have been no deaths from scarlatina as yet there, but many in the other villages. Saw three mild cases myself."

"Dr. Stephenson, who has been the chief accoucheur to the factory women for the last fifteen years, has not had a single forceps case amongst them, although in that time he has attended upwards of thirty first labours. Abortion is not more frequent than amongst other women. There has been one illegitimate child within the last three years."

"With regard to the physical appearance of the young persons. I went round the village whilst they were at dinner, and saw no squalid, emaciated, nor stunted individuals. I noticed five sisters from thirteen upwards, all employed in the mill from their childhood, every one of whom might be termed a fine grown girl; some of them remarkable for

symmetry and strength. The succession crop of infants in the village were very numerous and healthy-looking; generally destined for the mill." 2.

Here the author, as if doubting the evidence of his own senses, and apologizing to himself for not having found any thing at all approaching to his own unfavourable prepossessions, concludes his first report thus :—

"The very favourable situation of this mill, and the parental attention of Mr. and Mrs. Craig to the health and education of the children render it a specimen of factory life which I fear we shall find to be very superior to the general average." 2.

The description of the wet spinning flax-mills at Dunfermline, in which the thread is made to pass through hot water, presents a very different picture of factory labour.

"Visited the mills mentioned in the accompanying reports. Find that thirteen and a quarter hours are the daily term of factory labour here, independently of meal-times; on Saturdays eleven hours.

The difference between the comfort, cleanliness, and apparent salubrity of the wet and dry spinning-mills is very strikingly in favour of the latter; more particularly when splash boards are not placed in front of the perns to protect the spinners from the spray. In the mills not protected the spinners are wet through early in the day about the abdomen, and present a dripping, draggled appearance."

"The spinners (almost exclusively girls from ten upwards) never sit down, or almost never, excepting at meal-times. A good spinner cannot be formed if she begin to learn later than eleven years of age. The reelers, who are the stoutest girls; the spreaders, also adults; the card-feeders—never sit; indeed there is nothing to sit upon; they sometimes lean for a few minutes against a frame. Yet taking all these classes, or any of them indiscriminately, their appearance is that of health and extreme activity. Many are finely formed and strikingly handsome, who have worked as stated, from nine to maturity.

This day examined carefully and individually one hundred and eleven girls of the classes stated, with a view to find, if possible, a case in which the plantar-arch had been broken down by continued standing, as is stated in the evidence lately printed to occur sometimes in factory workers. Found many beautifully formed feet in those who had worked the longest. In one case, a woman, aged forty-three, who had worked from the age of seven, the foot was remarkably small and high in the instep. In no case did the plantar-arch seem to have been in the slightest degree disturbed."

"The pelves of the adult girls were remarkably well formed, with strikingly well-developed glutæi.

Nothing but the evidence of my own senses could have induced me to believe that girls, indeed any human beings, worked as stated from nine upwards, could yet possess, in maturity, the apparent extreme of high health and vigour, with finely-proportioned forms.

The wet spinning mills require amelioration. Wet clothes and bare feet on wet flagging, as in Kirkland's and Hall's, must produce disease. Half the spindles in the flagged rooms were idle in both mills from the indisposition of the workers; said to be influenza. Not so in dry spinning-mills.

"Amongst those examined was one woman, Jannet Walls, aged forty, who had begun factory work when seven years old; she had been a spinner twenty-four years, she said, yet her feet and ankles were remarkably fine, but sinewy, and of sharp lean outline, like those of the male.

The medical men here, Dr. Douglas more particularly, are of opinion, that puberty in mill girls is apt to be protracted sometimes to the twentieth year. Dr. D. attends about 250 collier families, and states that their young people are more healthy than mill girls. Has never met a distorted or narrow pelvis in the latter during the seven years he has practised here; not one forceps case. Cholera more fatal amongst colliers. Wounds in mill-workers heal most kindly. Never heard of a case of tetanus in Dunfermline, nor has Dr. Bowes."

"From what I have been able to learn and observe, I consider the spinner as by far the most important operative in a flax-spinning mill, and the most difficult to be formed. The masters are unanimous in asserting that girls, and they alone are trained to flax-spinning, never become expert artists if they begin to learn after eleven. I observed

two girls, for some time in Mr. Malcolm's mill, about thirteen each, in the same pass or space between two frames; one attended to sixty wet spindles, or the spinning of sixty threads of yarn, of five ounces to the hank, the other to fifty spindles.* The first had 11*d.* the other 10*d.* per day. The range which each girl had to move over along her spindles, or the length of the pass, was about twenty-two feet. It is quite impossible to give an adequate notion of the quickness and dexterity with which these girls joined their broken ends of threads; shifted the pirns; screwed and unscrewed the flies, &c. To supply the place of such artists by new adult hands would be utterly impracticable, and difficult in the extreme to find a relay of hands equally expert, under present circumstances. There is no sameness of attitude—no standing still; every muscle is in action, and that in quick succession." 5.

After having examined several hundred persons, of various ages, employed in flax-mills—after having observed them whilst at work at sundry hours of the day—during their hours of relaxation on Sundays and at their Sunday-schools, our Commissioner next gives a detailed, circumstantial account of the appearance, food, labour, and sanitary condition generally, of the individuals employed in twenty-three hand-loom weaving-shops, examined without selection, and then contrasts the conditions of the younger persons of both classes, by placing some of the more prominent circumstances connected with each in opposite *columns*, *thus*:—

| "*Young Weavers—Age from* 10 *upwards.* | *Young Mill-workers—from* 7 *or* 8 *upwards.* |
|---|---|
| 1. Sex.—<br>Indifferently of either. | 1. Almost exclusively female. |
| 2. Posture whilst at work.—<br>Always sitting. | 2. Always upright. |
| 3. Food, where taken.—<br>Always at home. | 3. Very often in the mills, especially in large towns. |
| 4. Working room.—<br>Always an earthen floor. | 4. Lower flats flagged; upper boarded. |
| 5. Temperature and atmosphere of working room.—<br>Cool and agreeable in the summer, excepting when fermented potatoe dressing is used, which produces a most disagreeable smell. | 5. Generally hotter than surrounding atmosphere.<br>In wet-spinning rooms very unpleasant smell: preparing rooms excessively dusty. |
| 6. Air and exercise.—<br>Sometimes employed in the fields in planting their potatoes, and in collecting them; sometimes in getting in the harvest. | 6. Never employed in the field nor in the open air, except going to their meals, and on Sundays. |
| 7. Reading and writing.—<br>Little or no time for either, except through permission from their parents. | 7. Can only be learned after working hours. |
| 8. Instruction in domestic duties.—<br>Always under the eyes of their parents. | 8. Never but when they go home to meals; often only when when they go home to sleep. |
| 9. In moral conduct.— | |

* "Each spindle produces, upon an average of days, half a spinal, that is two hanks (of twelve cuts and of five ounces of yarn each hank per day, according to Mr. Ayton's (of Kirkaldy) estimate. So that one girl now spins as much as 100 good hand-spinners per day formerly."

| | |
|---|---|
| The girls are watched over by their mothers. | 9. Never see their mothers but at meal-times. |
| 10. Amount earned.—miserably small. In the case of Janet Anderson, only 1*s.* 5*d.* per week. | 10. Considerable—from 5*s.* to 6*s.* 6*d.* per week as a spinner, say of thirteen or fourteen years of age. |
| 11. Application of earnings.—United to those of the father, and other members of family, for the joint support of all. | 11. Often applied to the support of widowed parents and infant brothers and sisters; often wasted by idle father; sometimes in great part spent by girl herself (when not under her mother's control) in finery, while she stints herself in food. |
| 12. Sources of unhealthiness.—Confinement; hard labour; poor living; damp room for half the day. | 12. Confinement; heated close atmosphere; admission of foreign matter into the lungs; constant upright position; wet feet and person, in wet spinning; hurried eatings; sudden transitions of temperature; accidents from machinery; syphilitic taint; want of cleanliness; gas lights in closed rooms in winter; personal labour only source of support; attention obliged to be as unremitting as the motion of a steam-engine." |

Amongst the hand-loom weavers, human exertion appears to be pushed in every age of life, to the very utmost limits of capability; and yet the greatest amount of labour which an individual can furnish is barely sufficient to procure, in exchange, the coarsest raiment, the meanest dwelling, and but a stinted allowance of the cheapest food. The following example, taken from one of the Glasgow Reports, is painfully illustrative of this fact.

"John Harrup works in a back damp earthen-floored shop, and sleeps in a miserably dirty garret in the same building; no beadstead, scarcely any furniture. Earns on an average 6*s.* per week, out of which he pays all his loom expenses, more than 1*s.* per week. He is twenty-five years of age; his wife twenty-one; one child; likely soon to have another. He is thin, pale, hollow-cheeked, and looks half-starved. He works from five to nine now, and often longer in winter. Solemnly assures me that he never takes thirty minutes to all his meals, during working hours. Would like exceedingly to become a power-loom dresser, but it requires great interest to get such a berth." 42.

Were we to quote all that is interesting in the paper before us, we should leave ourselves no space to examine the Reports of the other three District Medical Commissioners. Compelled, therefore, to pass over all the curious details connected with the cotton factories of Glasgow, New Lanark, Catrine, &c. the domiciliary visits to the families of cotton-spinners, weavers, colliers, dyers—the examinations of factory invalids of all ages (with the lists of their diseases,) presented by the trades-unions in all the large towns, &c., we shall confine ourselves, for the present, to the following extracts from Sir David's own conclusions, in which he contemplates all descriptions of factory labour.*

* The Editor having consigned the examination of this report to a gentleman of distinguished talents, and who had extensive knowledge of factory labour, both in England and Scotland, did himself peruse both the review and the original documents on which the review is founded. The Editor cannot allow this article to go forth to the public without expressing his opinion, that the labours of Sir David Barry are underrated by the reviewer. They form a monument to

"With regard to one of the important elements of health, viz. income, there is no doubt that the adult cotton-spinner is better circumstanced than any other class of operatives connected with the manufacture of wool, cotton, or flax; and as to the infant operatives, the comforts of the widowed mother, or indigent parents, are in direct proportion to the number of their children for whom they can procure factory employment.

But, although both the young and the adult mill-workers may command more abundant food and better clothing than their unemployed neighbours, there are causes to whose operation they are exposed, which, in a sanitary point of view, counterbalance the advantage alluded to.

1. The first and most influential of all is the indispensable, undeviating necessity of forcing both their mental and bodily exertions to keep exact pace with the motions of machinery propelled by an unceasing, unvarying power.

2. The continuance of an erect posture for periods unnaturally prolonged and too quickly repeated.

3. The privation of sleep." 72.

"Females are much less deteriorated in their appearance by mill-work than males. Amongst some thousand young women whom I have now carefully observed both in and out of their factories, and after having examined upon oath those who had known them longest as to the existence of deformities amongst them, I have not met with one distorted or narrow pelvis. If there be any difference between factory and other adult girls relative to that portion of the female form, I would say, that in the former, in this country, it is more fully developed. Of all the married women who had been mill-girls from their childhood, whom I visited at their own dwellings, and inquired about from their husbands, there are but two unfruitful. The husbands of all were spinners. The children were numerous for the time the couples had been married, and as healthy looking as those of any class of the community. Spinners almost always marry young, and select girls from seventeen to twenty-two, who immediately quit the mill upon being married; sometimes a little before that event."

"Although all the sources of immediate and prospective suffering to which I have alluded, may be so far remedied or mitigated by the liberal and benevolent management of large establishments, under enlightened men, as to render twelve hours of factory work compatible with average health and longevity—although I have not ascertained any positive disease or deformity to which factory children are peculiarly liable—although I am sure that the adult male factory operatives and mechanics look forward to an increased demand for their time, from the necessity which they think must arise of erecting new machinery, to compensate for the diminished productiveness which a short-time bill would inflict upon the existing machinery—yet I am of opinion that less labour ought to be required from the infant workers, and that more time should be allowed them for sleep, and recreation, and the improvement of their minds, than they at present enjoy. For the reasons already stated, however, the minimum of age for admission to factory work ought not to be raised above the end of the tenth or eleventh year, obliging the employer to ascertain that the child can read before it be employed." 73.

## II.—DR. LOUDON'S REPORT

Occupies 25 pages, and consists, 1st, of a letter from Leicester, mentioning an excursion to some collieries in the country, and quoting a rather vague account given by a person in charge of one of them, which, we are told, is applicable

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the industry, zeal, candour, talent, and tact of Sir David Barry—a gentleman, between whom and the Editor, the readers of this Journal well know there have been some sharp collisions. But the Editor would do violence to his sense of merit and his wish for justice, did he not take this opportunity of expressing his sentiments respecting the Factory Commission. With the talents, integrity, and high professional acquirements of the other Commissioners, the Editor is well acquainted; but he must say that the industry and tact of Sir David Barry, in this investigation, entitles him to the foremost rank in a laborious and difficult inquiry.

Palmam qui meruit ferat.

to the morality, education, and earnings of the operatives employed in that, and six other collieries. There are some general observations on the manufactures of the town, amongst which the following, if it had been supported by circumstantial evidence, would be important:—"On the whole, it does not appear that the misery portrayed in the evidence before the House of Commons exists, to any extent in Leicester." We regret to say that no personal examinations—no individual cases are recorded.

2. In a letter from Nottingham, where five factory-workers are stated to have been examined—two of them were deformed; one was a boy "with twisted knees, owing to long standing in the mill"—the other was a female, aged 45, who "commenced working in factories when five years old." There is nothing said as to the nature or seat of her deformity. It afterwards appears, however, from Dr. Loudon himself, that the deformity, whatever it was, was not in the pelvis.

There is a remark which we quote, from its agreeing with the interesting observation of another Medical Commissioner, as to the effect of an habitual exposure to a very high temperature on the health of young females:—"Visited the drying-room of Mr. Spencer, but never did I see so many healthy young women together, although the temperature was about 85°."

Here we would be led to suspect that the examination, in this instance, was not made with sufficient care, the degree of heat employed in drying-stoves being, we think, underrated. Sir David Barry, in his report on the stoves, at the great bleaching and dyeing establishment of Mr. Monteith, of Glasgow, states that Fahrenheit's thermometer rose in his own hand to 140°, whilst he stood in the midst of the stove-girls at their work, and that these girls were all in good health, although constantly passing through the open air from one stove to another; and that, when any of them happened to catch cold, they were very soon cured by going into the stove again.

3. We have next a communication from Leeds, containing notes of the examination of five or six witnesses, who had been previously examined before the Committee of the House of Commons; and covering detailed formal opinions by ten medical men of Leeds and Bradford. These latter documents occupy about 18 pages, and look very much like the studied productions of their authors. These opinions differ in no small degree amongst each other, as to the effects of factory-labour upon the youthful part of the population of the Leed's district; some asserting that it produces little or no unfavourable change in the health or form; others, that twisted bones, broken-down insteps, and cachectic diseases, are its frequent consequences. All, however, or almost all, agree that the hours of infant labour ought to be shortened.

### 4. *Conclusions by Dr. Loudon.*

These, as far as they relate to the effects of factory labour upon the mill-workers, are contained in a very small compass, and are chiefly founded upon such of the written statements already alluded to, as denounce the morbid effects of that labour in the strongest terms. "No cases presented themselves of deformed pelvis, varicose veins, ulcers in young people under twenty," &c. Upon this statement we cannot help remarking, that deformed pelvis must be a species of factory lesion of extreme rarity, because it would "present itself," even to the most superficial spectator, for it cannot be concealed whenever it exists; but varicose veins, and ulcers in the lower extremities, can only be detected by careful examination, for they do not obtrude themselves on our notice, and are most studiously concealed by the young adult female. Their frequency and dangerous magnitude however in mill-workers, are not the less certain, as may be learnt by referring to the numerous and frightful cases of enlarged veins seen by Sir D. Barry, who states that he found those whose work obliged them to

stand constantly, more subject to varicose veins of the lower extremities, and to a larger and more dangerous extent than he had ever witnessed even in foot-soldiers.

There are several administrative and financial suggestions thrown out by Dr. Loudon in his concluding remarks, which would have the effect of creating and placing in the patronage of Government certain appointments to be most advantageously filled by medical men, more especially by such as, from having been educated in manufacturing places, must be intimately conversant with the arrangements and economy of factories.

Knowing the talents and acquirements of Dr. Loudon, we must say that we were somewhat disappointed in the perusal of his report. We expected one of the most philosophical investigations which the subject would possibly admit of; and we looked for a freshness and originality of remark and observation, of which we well knew him capable—but we have been a good deal disappointed! We have been informed that the Doctor's health was not very good at the time, and this may account for the deficiency of personal labour in his report, as compared with that of Sir D. Barry.

## III.—DR. HAWKINS' REPORT.

This gentleman was the Medical Commissioner for the Lancashire District; by far the most important in the empire, as regards factory-labour. It was but fair to afford the distinguished author of "medical statistics" an opportunity of visiting Manchester in 1832, a place which he had rendered so strikingly remarkable in 1829 for the very low rate of annual mortality assigned by him to its inhabitants, as compared with those of other towns.

After estimating the annual number of deaths in London, at 1 in 42, Dr. Hawkins, at page 19 of his Statistics, goes on to say—"One city alone, in Europe or in England, approaches to London in the value of life, proportionately to its size; it is the second in England in number of inhabitants, the seat of manufactures—*Manchester*. The mortality of Manchester was, about the middle of the last century, 1 in 25; in 1770, 1 in 28. Forty years after, in 1811, the annual deaths are diminished almost beyond belief, to 1 in 74; but the improvement does not stop even there, for in 1821 they became still fewer, although the population has been quadrupled during the 60 years through which the deaths have so diminished." This improvement of health is attributed, in a great measure, to certain police regulations, and to ventilation. At the very time (1811) that this extraordinary salubrity is given to Manchester, the annual deaths in Liverpool were 1 in 30, and in Birmingham 1 in 34. Now, as Dr. Hawkins' Report, (written in London,) on the sanitary state of the factory population of Manchester in 1832, is but three years later in date than the preceding quotation, it would be no more than natural, that he could not pronounce factory-labour to be frightfully destructive of health, without offering some explanation as to the astounding degree of comparative salubrity which he had so lately found to prevail in the very spot where that labour was at the time, and is now pushed to its very highest tension. Yet such appears to be the fact. Dr. H.'s Report makes no allusion to his "Elements of Medical Statistics," and we are left to reconcile the one with the other in the best way we can.* The following are specimens

* The Editor of this Journal, who is not the reviewer on the present occasion, begs to state not merely his belief, but his certainty, that some most unaccountable error, crept into Dr. Hawkins' original statement as to the ratio of mortality in Manchester. He has been assured by one of the most talented and best informed actuaries in this kingdom, that the estimate is totally erroneous, and that the proportion of deaths in Manchester, so far from being only 1 in 74, is little less than 1 in 40."—*J. J.*

of the Dr.'s conclusions, as to the present state of the public health, and mortality of Manchester.

"In order to ascertain the state of health of the youthful factory classes, compared with youth in other conditions, I made a careful examination of the Bennet-street Sunday-school at Manchester, in which abundance of all trades exists. I accordingly took an account of 350 of both sexes not engaged in factories, and of 350 of both sexes engaged in factories. Of the former, several remain at home and do nothing; some are in service, some are dress-makers, some engaged in warehouses and in shops. Their age varied from nine years to twenty for the most part.

| Of 350 not in factories, | But of 350 in factories, |
|---|---|
| 21 had bad health, | 73 had bad health, |
| 88 had middling health, | 134 had middling health. |
| 241 had good health. | 143 had good health. |

Again, at the St. Augustine's Sunday School, at Manchester, I compared fifty boys engaged in factories with fifty boys not in factories, some of whom lived at home doing nothing, while others were engaged in shops and in various trades.

| Of the 50 not in factories, | But of the 50 in the factories, |
|---|---|
| 1 had bad health, | 13 had bad health, |
| 18 had middling health, | 19 had middling health, |
| 31 had good health. | 18 had good health. |

It will be seen that the advantage of health is at least double, at these institutions, on the side of those young people who are not engaged in factory work." 2.

"On comparing the number of deaths under two years of age in Manchester, Liverpool, and London, they appear to be far more numerous at Manchester than in the two latter places; of 1,000 persons buried in one year in those three places, 424 died at Manchester under two years of age, 362 at Liverpool, and 308 at London." 5.

We are sorry to find compressed into one short sentence, not only all that our author has thought proper to say on the diseases of the Manchester manufacturers, but also a sort of justification of his conduct in having said no more.

"It would be superfluous to discuss, within my present narrow limits, the peculiar diseases which may or which may not attach themselves to this condition of life, and respecting which some conflict of opinion prevails; but on all sides it is admitted that indigestion, hypochondriasis, and langour affect this class of the population very widely." 4.

The exemption of factories from cholera appears to have been very remarkable.

The information furnished by Dr. Hawkins to the Central Board covers nineteen pages, five of which are the Doctor's own, whilst the other fourteen are composed of parole evidence, answers to set queries, and the written opinions of medical men, not however (we are sorry to say) as to health and disease, but as to the abstract question of *short* or *long* hours of work. In this report we have again to lament the total absence of individual sanitary description, either of factory buildings, workers, or hygienic circumstances of factory life. In short, we have no portrait of any person or thing to prove to us, that the artist had carefully studied the original. Unfortunately we have nothing from the spot. The number of hours work, in relation to the age of the worker, occupies the Dr.'s mind exclusively. Personal communication with the central Commissioners after his return to London, may account for this, and a difference of opinion on the points just mentioned, may have given to the Report before us the polemic colouring it displays, more particularly when contrasted with some of the measures recommended by the Central Commissioners.

### No. IV.—REPORT BY DR. WOOLRICHE.

The results of this gentleman's investigations in the Western District, having been forwarded to the Central Commission early in his progress and jointly with

those of his immediate civil colleagues, do not appear in a separate form. His communications are not voluminous, but they are practical, divided, and comprehensive; such indeed as might be expected from an experienced military medical officer of long standing, independent character, and well disciplined mind; a man accustomed to deal with large masses of human beings under various circumstances of privation and suffering; a man taught by a thousand lessons to examine closely, and to trust chiefly, if not solely, to his own observation in all that is connected with the existence of individual disease. His sanitary picture of "the inhabitants of the beautiful vallies of Devon and Somersetshire," is highly flattering to the manufacturing classes.

"In many of the factories the children have an appearance strikingly healthy; some are unusually ruddy, active, and lively; and I state deliberately, that *I saw no case* of disease or distortion which could in *fairness* be solely attributable to the *employment* of the individual. That persons working in factories are not exempt from their full proportion of disease must be admitted; but after the inspection of many thousand operatives, old and young, I feel convinced, that taking into account the advantages and disadvantages of the manufacturing classes, as regards the confinement on the one hand, and their abundant supply of nourishing food on the other, the balance will be found considerably in their favour, as compared with the badly-paid agricultural labourers of the present day." 15.

Having found no disease produced by the manufacturing of "fine woollen cloth," and having found the manufacturers better off than their agricultural neighbours, he wisely, we think, recommends to let well alone, and to abstain altogether from uncalled-for legislation.

A careful perusal of these Reports, as well as those of the Civil Commissioners, has left the conviction strong upon us, that factory labour, more particularly in cotton and flax-mills, tends not a little to deteriorate both the mind and body in young persons so employed; but certainly not to the extent that Mr. Sadler, Mr. Oastler, and their school would have us believe. Much that is unfavourable to health and to high physical development of the human animal is common to all these classes of the community, whose bodily labour is from their infancy the only source of daily subsistence. It is therefore obviously wrong to attribute all the evils found attendant upon any one class to the circumstances in which that class differs from all others. Truth can be found only in the balance of experience. But can we wonder that enthusiastic philanthropists should have overlooked, or selfish agitators availed themselves of this source of error, when we find certain leading medical men in London (appealed to by the council of the nation) asserting that distorted and unproductive pelves in the female, must be the frequent consequence of factory-labour? The laws of physiology too are quoted by these gentlemen, and accepted in proof of this, as it now appears, most unfounded assertion. What will these high medical authorities say to the stubborn fact, that not one distorted pelvis has been found in all the factories of Great Britain—that abortions and difficult labours are rather less frequent amongst the females of those establishments than amongst those of the other working classes—that the reproductive power is but little, if at all deteriorated? What can they say, in candour, but that, at the time they gave these oracular opinions they had never seen the inside of a factory, nor ever examined the forms of those employed there? But let that pass. There is quite enough of evil without it in the present factory discipline of this country—that vile system which, in every case, converts the chubby playful boy, and the tender interesting girl into so many little locomotive steam engines, with scarcely respite enough allowed from their labour to take in as much of the coarsest fuel as will keep up their moving power. When we find the twisted femur, the cumbered knee, the stunted, degraded form, frequent, and direct consequences of this cruel system; whilst the youthful mind, which ought to be a garden of budding flowers, is not only left uncultivated but suffered to rankle

overgrown with foul weeds, surely it is time that reform should come, and we are rejoiced to learn that reform has come. May it prove as effectual as the Reports upon which it is founded are honest and unexaggerated.

## XI.

Elements of Materia Medica and Therapeutics, including the recent Discoveries and Analyses of Medicines. By *A. T. Thomson*, M.D., &c. Second volume, 1834.

We gave a short notice of the first volume of this valuable work, several months ago, and we now proceed to the second and concluding volume. Few medical practitioners have devoted so much time and labour to materia medica as Dr. Thomson, while the circumstance of his being a physician of ample experience and accurate observation, qualified him well for the second, and not less important subject, the application of medicines to the treatment of diseases. In a dispensatory the subject of therapeutics can scarcely be touched upon; and even in such a work as that before us, the author has but little scope for the introduction of personal observation and remark on the difficult art of applying remedies to the living machine. It may be said that therapeutics must be *practical* and nothing else. This is an error. There are more theories at the bed-side than in the closet. Very few even of our oldest practitioners feel the pulse or examine the tongue of a patient, without a theory—too often a prejudice, starting into his mind, and influencing the prescription which he writes. Dr. Thomson is far from being free from these *tendencies*, almost inseparable from the human mind—and to which, indeed, strong minds are much more prone than weak ones

The work being almost entirely elementary, and adapted to the medical student, we cannot attempt any thing like an analysis—and the author has laid in too large a stock of reputation to require criticism on a work where he is so much at home on all chemical and pharmaceutical points. We shall only therefore give two or three short extracts to shew the manner in which the work is executed.

1. *Ratanhy Root.* In combination with purified animal charcoal, in the proportion of one part to three of charcoal, it forms the best tooth-powder that can be produced.

2. *Rumex Aquatiens—Great Water-Dock.* Dr. T. has had no experience of this except in two diseases—both of which are very difficult to cure—viz. herpes labialis, when it changes into a species of impetigo—and ichthyosis, or fish-skin eruption.

3. *Ruspini's Styptic* owes its powers, according to Dr. T. to gallic acid, combined with a small proportion of sulphate of zinc and opium, dissolved in a mixture of alcohol and rose-water. We confess that we doubt this, as we have been able to perceive neither taste nor smell in some samples of

this styptic, which proved very efficacious, nevertheless, in two alarming cases of internal hemorrhage.

4. From our author's dissertation on the application of astringents in the treatment of diseases, we shall make a short quotation.

"In hæmoptysis, if the excitement be considerable, after bleeding at the arm, the use of cold water and of ice, with binacetate of lead in combination with diluted acetic acid, are indicated. When the effusion of blood from the lungs is considerable, no circumstances should interfere to prevent us from endeavouring immediately to check it: but when it is not of this alarming character, and there is no obvious predisposition to tubercular consumption, especially if it be the consequence of a suppression of the menstrual discharge, it should only be moderated, not checked suddenly, which might induce a congestion in some organ less capable of supporting it with impunity. The kind of Astringent most resorted to in this form of hemorrhage is, as I have already said, the binacetate of lead; and I have no hesitation in recommending it either alone or in conjunction with opium, in much larger doses than it has hitherto been given. Two drachms of it have been swallowed accidentally, instead of lump sugar, without any serious evil resulting—a constriction of the œsophagus and costiveness being the sole effects experienced. It is necessary to remark, that when it is given in the fluid state with laudanum, vinegar should be added to redissolve the morphia, which is thrown down with the meconate of lead. Indeed, in every case, the remedy is more safe when given in conjunction with diluted acetic acid, which prevents its conversion into the carbonate of lead." 85.

5. Under the head of errhines, we have the following observations on snuff-taking.

"Snuffing is the most frequent and the least injurious mode of using Tobacco; although, in those unaccustomed to it, it causes nausea and vertigo. In great snuffers the stomach frequently suffers; dyspeptic symptoms supervene, accompanied with pains and a sensation of twisting in the bowels—effects which may result from the snuff passing into the pharynx and being swallowed; although it is also possible that they may proceed from sympathy. Instances daily occur, in which quantities of snuff are coughed up by great snuff-takers; and Dr. Alston says that some persons have thrown up balls of snuff. It is generally injurious in weak and what are termed nervous subjects; and some practitioners, among whom is the celebrated Lorry, have ascribed the more frequent occurrence of nervous diseases to the daily excessive taking of snuff. Upon the whole, however, it is probable that the statements respecting the baneful effects of snuff, are, at least, greatly exaggerated. In the manufactories of snuff in France, in which upwards of 4000 persons are employed, it has been ascertained that the workmen become habituated to the atmosphere of the manufactory; that they are neither subject to special diseases, nor to disease generally; and that they live, on an average, as long as other tradesmen." 122.

An amusing anecdote is related of Fagou, a celebrated physician of Louis XIV., who, in the midst of an impassioned oration on the pernicious effects of snuff-taking, made a pause, and, in an unguarded moment, took out his box and treated himself to a hearty pinch—causing no small merriment among his auditors!

6. Passing over many sections, containing highly useful matter for students, but not calculated for notice in a Journal of this kind, we extract the following passage respecting liquor potassæ as a diuretic.

"As it acts (potassa) as a powerful escharotic when applied to the body, it cannot be administered internally in a solid form; it must be largely diluted with water, or some bland aqueous fluid. In the form of Liquor Potassæ of the London Pharmacopœia, it may be given in very large doses, if the dose be gradually augmented and sufficiently diluted. This solution, when properly prepared, is limpid, colourless, and void of any odour; it is too acrid and caustic to be tasted alone; and when rubbed between the fingers, it feels soapy, owing to a solution of the cuticle. Its specific gravity should be 1.056; and one pint of it should weigh sixteen ounces. It ought not to effervesce with acids, nor to render lime-water turbid; but it is seldom prepared for medical purposes so free from carbonic acid, nor is this perfection requisite. When it is desirable to free it entirely from carbonic acid, the alkaline solution and the lime should be boiled together.

In its ordinary state, Liquor potassæ, when given in doses of from ten minims to ʒss. in a large cupful of water, or of milk, or almond emulsion, or even beer if it be not sour, passes unaltered to the kidney and acts as a Diuretic. When taken into the stomach, however, its primary effect is upon that viscus. If any acid be present, it neutralizes it; and when the dose is sufficiently large to allow the alkali to predominate, or if no acid be present, it then acts as a sedative upon the stomach, allaying its morbid irritability, and enabling it to secrete the gastric juice more slowly, and consequently in a more healthy state. Its secondary action is upon the kidney, to which it is carried undecomposed; and its passage through which can be detected by testing the urine with infusion of rhubarb or of turmeric. As a Diuretic, Potassa is not extensively employed, owing to a fallacious opinion that it is injurious, if given in doses sufficient to produce its full effect. I have given it to the extent of upwards of 100 drops, three times a day, in psoriasis, without any bad effect; but, on the contrary, with the greatest advantage. It must not, however, be given in such doses at first; but, beginning with ten or fifteen drops, the dose should be gradually increased until the full dose be administered. As soon as it displays its diuretic effects, the influence of the remedy over the disease becomes obvious: but its use must be continued, and the dose as gradually diminished as it was increased, for some time after the disease has disappeared." 397.

We strongly recommend Dr. Thomson's work both to students and practitioners, as an excellent reference on the important subject of materia medica and therapeutics.

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## XII.

**An Investigation into the remarkable Medicinal Effects resulting from the External Application of Veratria. By *Alex. Turnbull*, M.D. Octavo, pp. 96. Longman and Co. 1834.**

This new substance was discovered in 1819, by Messrs. Pelletier and Caventon, in the seeds of veratrium sabadella, and about the same time, by Meysner, in Germany. Hitherto it has been obtained from veratrium sabadella, veratrium album, and colchicum autumnale. It is not a simple body, but is composed of three distinct and easily separable principles, named veratrine, sabadelline, and mono-hydrate of sabadelline. The proportions

of these principles may, and do vary—hence some variety in the strength or properties of the medicine.

"The veratria of commerce is nearly white in colour, and in the form of a fine powder; it is without smell, but when accidentally or otherwise brought in contact with the mucous membrane of the nose, it induces violent and even dangerous sneezing; when applied to the conjunctiva, it produces great irritation, accompanied by an abundant flow of tears, which does not subside for some hours. Its taste is extremely acrid, but destitute of bitterness; and it acts very strongly upon the mucous membrane of the stomach and intestines; if introduced into the stomach, it proves highly emetic and purgative, for even in old subjects a quarter of a grain acts powerfully upon the bowels; and in some experiments the effects have been so violent as to shew that death would have followed the administration of a few grains. Occasionally it happens that during the preparation of veratria, some of the particles floating in the air are inhaled, and when such is the case its effects are generally purgative. M. Andral, jun. found that when it was applied immediately to the tissues, violent and speedy inflammation was the consequence; that when thrown in small quantity into the veins, it acted upon the large intestine; and that when introduced in a larger portion, either into the veins or intestine itself, tetanus followed.* From these circumstances, veratria was very properly considered to be a medicine possessed of extreme activity, and it seems to have been some little time before it was thought safe to introduce it into practice; and although it has been employed by some individuals, yet such does not appear to have been the case to any great extent." 4.

From the medicinal qualities which will shortly be detailed, its internal use is not likely to be great. Externally, it is best applied in the form of ointment, made by rubbing from ten to twenty grains or more of the alcaloid with an ounce of hog's lard, of which the size of a large nut may be rubbed night and morning over the seat of complaint, until relief be obtained. Care should be taken that the ointment be not applied to any injured or abraded surface, otherwise considerable irritation of the part will be produced.

The effects resulting from the internal and external use of veratria are remarkably different.

"We have seen that when applied to any of the mucous membranes, even in the smallest quantity, it produces the most violent irritation, and that when introduced into the stomach it operates as an emetic and cathartic; but when rubbed upon the surface of the body to the extent of six or eight grains a day, for several weeks or even months together, no such consequences follow; for although the constitution has evidently, during the greater part of the time, been under the influence of the veratria, so far from acting in that manner, it has been observed to calm irritation, remove pain, and produce considerable elevation of spirits. The general health and appearance begin to improve, the appetite remains unimpaired or even becomes better, the patient experiences not the slightest degree of nausea; and the bowels instead of being acted upon in the manner in which the internal exhibition of the medicine would lead us to anticipate, are either altogether unaffected, or such a degree of constipation is induced as to render the use of purgatives necessary to keep them in their usual state.

When the veratria is applied externally in dropsical diseases, the emetic and cathartic effects which result from its internal employment in these affections are exchanged for a diuretic operation, so singular and beneficial as to bring about the removal of the effused fluid in a time much shorter than it can be ac-

* Magendie, Journal de Physiologie, tom. i.

complished in by any other known medicine; and it has done so in many cases after every other means had been previously tried without avail; but in diseases unattended by aqueous effusion, no effect whatever upon the kidneys has been observed." 6.

The frictions with this ointment do not irritate the skin, however long they may be employed. When more than a few grains of veratria are rubbed in, the patient generally experiences a degree of warmth and tingling in the part, and until this takes place, the peculiar effects of the medicine do not usually manifest themselves—a circumstance worthy of attention.

"After the ointment has been applied a sufficient length of time to put the constitution completely under its influence, the feeling of heat and tingling extends itself from the place where the friction may have been made, over the whole surface of the body, and in some instances involuntary twitchings of the muscles of the mouth and eyelids are induced; but these symptoms disappear so soon as the rubbing has been discontinued for a day or two, and no disagreeable consequences follow to the patient. The sensibility of the parts over which the application has been made, is increased to such a degree as to render them peculiarly susceptible of the presence of certain stimuli, particularly electricity or galvanism; these agents have in some instances been applied along with the vetatria ointment, but have given rise to sensations so acute as to render their further employment almost insupportable, and that without the slightest perceptible alteration of the surface. It does not appear altogether necessary that the friction should be made exactly over the seat of the disease; for two cases have lately come under observation in which the individuals who rubbed on the ointment imbibed as much by the hand as proved sufficient to cure them of painful affections in distant parts of the body, under which they had been labouring for a considerable length of time before." 8.

Dr. T. next proceeds to a consideration of the principal diseases in which the veratria may be employed with advantge, premising that the cases are faithfully detailed, without exaggeration or concealment, in order that no extravagant expectations may be engendered by their perusal, as is too often the case with accounts of new remedies.

### 1.—Affections of the Heart.

Dr. T. does not pretend that any permanent advantage has arisen from veratria where there was any structural disease in the heart, but only in those anomalous functional affections which distress the patient, alarm the friends, and excite suspicions of structural alterations.

"These diseases are generally characterised by difficulty of respiration, accompanied by cough, expectoration, inability of remaining long in a recumbent posture, startings from sleep, swelling and coldness of the extremities, palpitation, a rapid small irregular pulse, accompanied by anxiety and a sensation of pain, or rather of constriction in the region of the heart; occasional faintness and sense of suffocation. It has been successful even in worse cases; for one of angina pectoris (to be related immediately,) appears to have received most marked and permanent advantage from a few rubbings with the ointment." 12.

If the above symptoms be those of functional disorder merely of the heart, we confess that we have studied in vain—for, in our practice, they are the phenomena of organic diseases. We are sincerely rejoiced, then, to learn,

on Dr. Turnbull's authority, that in veratria we have a remedy for such symptoms—and even for worse symptoms than the above. It is true we should have been better satisfied if Dr. Turnbull had assured us that, on auscultic examination, he found the structure of the heart unchanged, in cases of the above description; but this mode of diagnosis does not enter much into his practice.

For affections such as are characterized by the foregoing symptoms, an ointment, with fifteen or twenty grains to the ounce of lard, is to be rubbed over the region of the heart for five minutes daily.

"In all the cases which have come under observation, a few such applications have generally proved all that was requisite either to effect a complete cure, or at least, to cause a cessation of the symptoms for a considerable time; the friction may then be employed at longer intervals, and should any slight accession take place, it may be removed by a repetition of the same means."—12

This is the most cheering intelligence we have received since the commencement of our practice! During the action of the veratria, the pulse increases in strength and "becomes more regular—the extremities regain their natural warmth, and the swellings, when they do exist, rapidly disappear." The general health improves, and the distress and anxiety wear off, the sleep becomes refreshing—the cough and expectoration diminish daily—and the fluttering action of the heart is exchanged for regular and uninterrupted pulsation.

"Although this be the usual progress of the action of the veratria in these diseases, it nevertheless sometimes produces effects of a different kind, at least during the time of its employment. It has happened that from one application the symptoms, and particularly the palpitation, have been increased to such a degree as to render it impossible to induce the patient to submit to a second; but what is not a little singular the irritation has subsided in a day or two, and along with it every trace of the disease itself has disappeared. During the whole period the constitution is under the influence of the medicine, the functions are but little altered, with the exception of the secretion of urine, which is, upon the whole, more actively carried on than at other times; and this latter circumstance, in all probability, depends upon the existence of watery effusion somewhere in the body, a condition which appears necessary before the veratria can produce a diuretic effect." 13.

In order not to interrupt the chain of our ideas by going to other subjects, and then returning, we shall introduce some cases here, in illustration of the effects of veratria in cardiac affections.

*Case* 1. A lady, 55 years of age, had been attacked seven years ago with thoracic inflammation, for which she was copiously bled. She never perfectly recovered, but had ever afterwards constant cough, scanty mucous expectoration, difficult and hurried respiration, purple lips, small, rapid, and irregular pulse, perceptible undulatory motion over the region of the heart, *and over a great part of the anterior surface of the chest*, altogether different from ordinary pulsation. "The ear applied to the chest, over the same region, distinguished the heart's action to be extended, indistinct, and undefined in character." Pain and numbness were complained of along the left arm. Except flatulence, there was no symptom of derangement of the digestive organs. She was put under the influence of small doses of tartrite

of antimony, and antimonial frictions, with croton oil, were applied over the chest and down the arm, until a pretty free eruption was brought out. "Under this plan the patient, for the first time, experienced decided relief." Such debility, however, ensued, that the same remedies could not be continued. The veratria ointment was directed to be rubbed, twice a day, along the affected arm, and the result exceeded our author's anticipations.

"The cough and breathlessness, to a certain extent, subsided, and the pulse and action of the heart were greatly improved; the most decidedly beneficial effects, however, were produced upon the extremity; the pain and numbness had induced the patient to state that, comparatively speaking, she had recovered the entire use of her arm. From this time the ointment was directed to be used every evening for about ten days, and then only occasionally, as it might be found necessary.

In about a fortnight from the first application of the veratria, the patient was able to leave her room, and walk up and down stairs with facility; and the general improvement of her health was such, that she ventured into the open air, but in consequence of incautious exposure, the symptoms returned two or three times, though by no means with the same severity as before; and when such an occurrence took place, one or two rubbings with the ointment afforded complete relief. She is now in comparative health; her general appearance is good, the pain and numbness of the arm have entirely disappeared, the circulation is much more regular than it has been for a great length of time, the cough and difficulty of respiration are almost gone, and she can now remain in the recumbent position, and enjoy a good night's rest; and the last time I saw her, she had walked about four miles without any inconvenience." 18.

The foregoing case is acknowledged by our author to be one of extensive organic disease; but whether the apparent amendment has resulted from the counter-irritation of the antimony—some temporary mitigation of the symptoms from the efforts of Nature—or the veratria, is more than we would venture to decide. We certainly have our doubts as to the efficacy of the new remedy in this case.

*Case* 2. Mr. B. aged 36, a banker's clerk, was seized ten years ago with palpitation, followed by pain and sense of stricture in the region of the heart, with irregularity of pulse. There was no cough; but the digestive functions were disordered, and the nervous system highly irritable. The veratria ointment was ordered to be used, as in the preceding case, night and morning. The patient returned in the course of a week, to report that he was "quite well." As each little box of ointment, containing an ounce, costs twelve shillings sterling, to which may be added a guinea for the Doctor's fee, it is not improbable that the banker's clerk began to calculate that this would be a costly method of cure, and reported himself as "quite well" somewhat prematurely.

*Case* 3. A lady, 36 years of age, had suffered for five years from palpitation of the heart, with much difficulty of breathing—succeeding a severe inflammation of the chest. The means employed by her physicians at Bristol had failed.

"Her eyes are suffused, her memory much impaired, and she has a considerable degree of nervous irritability. He breathing is difficult, accompanied by

slight cough and a sense of partial suffocation, along with pain across the region of the heart and down the left arm, and these feelings are materially increased by walking or any other exertion. Her pulse is irregular and quick; bowels costive; feet generally cold; and her sleep interrupted by the palpitation." 21.

Tartrite of antimony, blue-pill, and a croton-oil embrocation to the chest and arm, with quietude, produced great relief; but the palpitation returned as violently as ever upon the slightest exertion. Debility had also increased. The ointment was ordered; and frictions with croton-oil were used to the arm till a raw surface was produced, when the veratria was applied over the excoriated parts. In a day or two she was much better—and, in three weeks, she returned home "quite well."

It is hardly necessary to remark that, here again, the complication of the means leaves us in some doubt as to the merit of any particular remedy.

*Case* 4. A clergyman, aged 50, had been affected for seven years with severe palpitation, quick, irregular pulse, dyspnœa, cough, expectoration, and great anxiety.

"He was ordered to take small doses of tartar emetic, and to have a blister applied over the chest; and this treatment was pursued with considerable advantage for the time, but when it was remitted he soon returned to the same state as before. As this seemed a fair case upon which to make trial of the veratria, it was ordered to be rubbed on in the manner already described; and with its accustomed success. By making use of the frictions once every night he became gradually better, and at the end of a week considered himself quite well: he was advised, however, to continue the ointment for a little longer, and then to leave it off by degrees; this was accordingly done about six months ago, and he has remained ever since in perfect health, free from every vestage of his old complaints, and fully able for the discharge of the functions of his office." 23.

*Case* 5.—*Angina Pectoris* Mr. W. aged 58 years, had been affected for 17 years with palpitation, and, for the last seven years, with dyspnœa in paroxysms, coming on whilst taking pedestrian exercise, presenting the usual ymptoms of sternalgia. All the means employed had been ineffectual. When he applied to Dr. T. he had a peculiar purple blush on his face, with weak, quivering voice. A tremulous, confused, and irregular pulsation was heard in the region of the heart. The pulse at the wrist was irregular and intermittent. The left side of the chest appeared much larger than the right, and the intercostal spaces wider. The abdomen was distended, and an enlargement appeared in the hepatic region. The bowels were very torpid, the lower extremities a little swollen, and the urine scanty.

"A course of medicine was prescribed, consisting of laxatives combined with antacids, for the purpose of clearing out the bowels and removing the distension of the abdomen. These means were employed alone for about a week, and then, with the addition of a little squill to the pills previously ordered, it was persevered in for a fortnight longer; at the end of which time he felt considerably better. The swelling in the legs had diminished, the digestion was improved, and, altogether, he was in more favourable state of health than before." 25.

The veratrine ointment was now ordered to be rubbed in on the region of the heart—"and in the course of three days, the feeling of pain and constriction across the chest had entirely disappeared." The pain in the arm

remaining, the frictions were applied there, and immediate relief was experienced. The patient still, from time to time, applies the ointment to the chest, and he is thereby enabled to pursue his usual avocations. The medicine exerted a strong diuretic effect in this case—and all diuretics that take a good effect are known to relieve cardiac complaints.

*Case* 6. A lady between 50 and 60, of sanguine temperament, and rather corpulent, had been ill nine years. During the first three years she suffered from dyspepsia, and for six years she had almost constant palpitation, with dyspnœa, and inability to go up stairs.

"She has violent pulsation over the region of the heart, along with an irregular and intermittent pulse, and complains, at times, of very severe pain across the chest, and stretching down the left arm: her lips are of a purplish colour; her eyes dull; her countenance sallow; and she labours under considerable nervous irritability, accompanied by impairment of the memory; she has a degree of fulness in the right side, under the margin of the ribs, and her feet are generally cold and a little swollen. For these symptoms she had previously been treated by bleeding, blistering, purgatives, and, indeed, every thing possible appeared to have been done, without procuring any abatement in the disease." 28.

The veratria ointment was employed on the chest and down the arm every night. "In the course of a few days all the symptoms were nearly gone." The ointment was continued for a month, at the end of which time she could walk three miles with ease, "and returned home quite well." Six months have elapsed without any relapse.

Three more cases of cardiac disease or disorder are narrated, but the foregoing are sufficient. If no error has crept into either diagnosis or description, diseases of the heart may now be considered as playthings, in the hands of practitioners. The worst of it is that, as it requires nearly a hundred weight of hellebore to yield an ounce of veratrine, the valleys of Switzerland and the mountains of Germany will not be able to supply us with veratria.

We now come to the second chapter, on the external application of veratria in neuralgic affections.

We are informed by our author, that the remedy in question has been employed in neuralgic pains situated in every part of the body—"and the cases which have hitherto been subjected to this plan of treatment have almost without exception, yielded immediately to its effects, even after having resisted every other for a length of time."

"It is, however, in the tic douloureux that the most remarkable and speedy change is effected in the state of the patient, for often during the continuance of the first friction the paroxysm is brought to a termination, and does not again return; and if this be not the case, the following interval is at least of much greater length than any that may have previously occurred, and the next accession of pain is much less severe and more easily removed." 36.

In facial neuralgia, we are informed, that when the pain is scattered over several branches of nerves, the symptoms are removed more easily, and by weaker ointment than when the tic is concentrated on one point. In the former case, 20 grains of veratria to the ounce of lard will be sufficient. The friction should be continued until the heat and tingling be so great as

to produce an impression on the feelings of the patient equal to that arising from the disease itself, when it is to be discontinued for a short time, again to be renewed, if the neuralgic pain appears to predominate.

Where the pain is concentrated in the frontal nerve the case is more obdurate than almost any other—yet even such is found to yield to an ointment of sufficient strength, without other means.

"For the purpose of obtaining the full effect of the veratria as soon as possible in such instances, it has been used in the proportion of forty grains to an ounce of lard, and this may be done either from the very beginning of the treatment, or the quantity of the alcaloid may be augmented by five grains in each prescription until it attain to that amount. The former method is upon the whole to be preferred, because by it an immediate check is put upon the paroxysm in severe cases, without the necessity of continuing for a length of time the employment of weaker applications." 39.

Great care must be taken not to let even the most minute particle of veratria come in contact with the conjunctiva, since such an occurrence would produce great irritation.

*Case* 1. A lady, aged 55, had been afflicted with tic douloureux in the cheek, forehead, and eye-brow, for 36 years. The paroxysms generally came on once a week, and the intervals were never longer than 14 days. Her sufferings in the attacks were extreme; but in the intervals she was perfectly well. She was ordered to keep the bowels open by means of a pill, and at the commencement of each paroxysm, to take a small dose of acetate of morphium, to be repeated every half hour till the pain abated. She persevered in these means for two months, "and experienced considerable relief." But although the paroxysms were moderated, they were not subdued, and the intervals were not lengthened. She was then ordered to take small doses of the strychnine for a paralytic affection of the eye-lid, and continued it till convulsive twitches took place, yet without any beneficial effect. The veratria ointment (20 grains to the ounce) was then rubbed on the forehead and side of the face every day till the pain ceased. This was effected in fifteen minutes. The paroxysm returned in two hours, and the frictions were renewed, with extinction of the pain. To this there succeeded an interval of ten days' complete ease, when the attack returned as violent as before. The application was marked still more by relief than formerly. After this the patient had only one or two slight accessions of the tic. It is now four months since they ceased. The paralysis of the eyelid disappeared during the remedial process.

*Case* 2. A gentleman, aged 40, had laboured under tic douloureux in the right side of the face and forehead, for 16 years. There were few intermissions. His digestive organs were somewhat deranged, and he was ordered to take small doses of blue-pill with Epsom salts. The veratria ointment was also rubbed twice a day over the seat of the pain. In the course of four or five days he felt much better. He was directed to apply the ointment only when threatened with a paroxysm. At the end of four weeks he was cured.

*Case* 3. A lady, 48 years of age, had severe tic douloureux for 22 years

in the face. She was treated in the same way as the preceding patient.—After the third friction the pain ceased, and never afterwards returned.

*Case* 4. A lady, 35 years old, had suffered severely, and almost without intermission for eighteen months, with tic in the cheek and forehead. As her general health seemed good, no medicine was prescribed, except the veratria ointment. The first friction cured her.

*Case* 5. A lady, 25 years of age, had tic for seven years, in the site of the supra-orbitar foramen. The paroxysms varied in length, from 16 hours to two days, the intervals being from ten days to three weeks. All means had been tried, without any permanent benefit. The digestive functions were disordered, and laxatives with blue pill were prescribed for a week. The carbonate of iron was tried for six weeks, without any benefit. Then the veratria ointment was rubbed on the eyebrow and forehead. The cure appears to have been complete.

*Case* 6. A lady, æt. 26, hysterical, had tic douloureux in the left eyebrow, since her fifteenth year. The paroxysms are usually once a month, but occasionally take place oftener, from alternations of temperature. She rubbed on the ointment, of usual stength, till the pain ceased, which it did in half an hour. Six months have now elapsed without any return of the paroxysm.

Several other cases of neuralgia of the face, head, back, &c. all apparently cured by this magic ointment.

### Rheumatism.

If veratria be capable of curing tic douloureux, it may, *a priori*, be conjectured, that it will be equally efficacious in chronic rheumatism—a disease so near akin to neuralgia. Dr. Turnbull observes that, in the acute form of the disease he has only tried it in two or three cases; but in these it was as beneficial as in the chronic. The ointment was rubbed directly on the inflamed surface, "and instead of producing any additional irritation, the inflammation and swelling rapidly subsided, and the pain was quickly subdued." Truly we have now nearly all we want in medicine!

"In lumbago, sciatica, rheumatic affections of the muscles over the chest, or in other parts, a removal of the symptoms is effected almost immediately by the first friction; and in more obstinate cases, a few more will, in general, have the desired efiect." 61.

The cases we may pass over. Nine are detailed.

### Paralysis.

Those partial or local paralyses observed in the eyelids or face, where tic douloureux had existed, gave way under the use of veratria for the latter complaint. This led our author to an extension of the remedy to other cases of paralysis—and the results have been "so far favourable."

"In the cases referred to, the disease existed in different degrees of severity;

in two or three, the patients had almost entirely lost the power of motion in one side of the body, but recovered it again, by making use of frictions with the ointment over the affected extremities, and more particularly along the course of the nerves. The greater number has, however, consisted of slight paralytic affections, situated in certain muscles, existing either by themselves or in conjunction with other affections, and especially with tic douloureux.

From the more extensive nature of the disease in the former cases, these have required the treatment to be continued for some little time; but in the latter, one or two applications have been successful in restoring the muscles to their healthy action.

In either instance, after the frictions have been made, there is a degree of warmth and tingling felt in the parts; gentle indeed at first, but becoming more and more manifest at each successive application, until the nerves of the affected parts are stimulated to a degree sufficient to enable them to resume their functions.

The proportions of the veratria employed ought, in most cases, to vary with the severity of the affections to be treated by it, and also, according to the extent of surface over which it has to be rubbed; but, as a general direction, fifteen or twenty grains to an ounce of lard will be sufficiently strong, and frictions of ten to twenty minutes duration will answer every purpose." 74.

Want of space compels us to pass over the cases, four in number. Some of them are far from convincing.

The fifth chapter is on the external use of veratria in dropsy. The forms of the disease were those of "hydrothorax, ascites, anasarca, and dropsy of the ovaries." "In all these it has been found of service, but particularly in the first three, several cases of which have been cured by it in a week or two, even when the severity of the symptoms was such as to threaten the life of the patient within a few hours." We cannot doubt the facts or even the assertions of an author; but certainly we would doubt the evidence of our own senses, if such cures of hydrothorax and ascites were to be performed before our eyes. The facts cannot, however, remain long in doubt, since the hopes generated by our author's statements, will stimulate thousands to test the miraculous remedy in every way. If we are not authorized to doubt, we must, at least, claim the privilege to fear!

Dr. T. acknowledges that encysted dropsies have resisted the veratria more obstinately than the other kinds; yet a few cases have been cured. The following passage is rather a qualifier.

"There appears to be two states of the disease, in both of which the veratria is of use, though in different degrees, when applied to the surface of the skin. The one, where the pathological condition of the organs upon which it has depended has been removed; and where, nevertheless, the aqueous effusion, from want of action in the absorbing vessels, remains: the other, where the organic change is such as will admit of no remedy. In the former instance, the veratria has succeeded in restoring the patient in a short time to a state of health; but in the latter, such an effect is not, of course, to be expected; yet, even where this is the case, considerable relief may be obtained from its employment, after other means have failed.

It is, therefore, indispensably necessary, before the veratria be applied, that every attention be paid to the state of all the organs, upon a derangement of which, either in structure or function, the effusion may depend; otherwise the anticipated effects will not be produced. If after a careful examination, nothing wrong of importance, can be detected, the ointment may then be had recourse to, and probably with success, but if the contrary be the case, the diseased state

whatever that may be, should if possible, be first removed, and then the treatment may be proceeded with. In some instances particularly of encysted dropsy, the presence of an unhealthy condition of the system totally unconnected with the disease itself, has very much impeded the action of the medicine, and has required removal, before it could go on without interruption." 81.

When dropsy depends, as it always does, on derangement in structure or function, the removal of the cause will generally prove the removal of the effect, even without veratria; and as Dr. T. very wisely directs us to "remove the diseased state, whatever that may be," before we apply the veratria, we may very readily believe that the application of the specific has been often followed by the subsidence of dropsy. It is not impossible that error has crept in through this channel, occasionally, in Dr. Turnbull's practice, without his suspicions being awakened to the source of it.

"As the frictions should, if possible, be made over the whole surface under which the effusion exists, and as this must vary with the situation and extent which it occupies, no prescription applicable in every instance can be given, except that the quantity of the ointment rubbed in each time, should not, in adults, contain less than two, nor more than four or five grains of veratria; and the friction should be continued for about twenty minutes, and repeated once or twice a-day, according to the impression produced; this in general begins to shew itself in a few hours; but not in the manner in which our knowledge of the consequences following from the medicine when given internally would lead us to anticipate." 82.

This veratria is, indeed, an extraordinary substance. Given internally, it vomits and purges—but, rubbed on the skin, it proves diuretic, and constipates the bowels.

"The quantity of urine evacuated by the patient, in some instances, almost exceeds belief, and might be considered as accidental, were it not that it has been observed to be an invariable occurrence. This circumstance is followed by an almost immediate subsidence of the swelling, which goes on gradually to diminish until none of it is left; the patient then gains strength daily, and soon acquires his former degree of health." 82.

We shall abridge a case, by way of illustration.

*Case.* J. B. Esq. of Pocklington near York, aged 30, came under Dr. T.'s care in the Summer of 1830, having then laboured under ascites for a year, without any advantage from medicine. He was now anasarcous throughout, with large effusion in the abdomen. The thoracic organs were very much impeded in function, with cough, dypnœa, irregular pulse, and sense of suffocation. The urinary secretion was under a pint in the twenty-four hours. Our author pursued a plan previously acted on, viz. a course of mercury, squill, digitalis, colchicum, and various diuretics for six weeks, without any benefit.

"In this emergency it was resolved upon to make trial of the veratria externally, and a box of ointment made with four grains of the alcaloid and an ounce of lard, was accordingly directed to be rubbed over the surface of the abdomen at bed-time. The whole quantity was applied; and in the course of the night, and following morning, the patient evacuated no less than eight pints of urine, which had caused a marked diminution of the swelling, both in the abdomen and extremities, and was attended with considerable relief to the breathing and circulation; but, along with these effects, the medicine had caused such an alarm-

ing prostration of strength as to render the administration of stimulants absolutely necessary, for three days before the ointment could be repeated: at the end of that time, when the patient appeared somewhat recovered from his weakness, a fresh quantity was prescribed, in which, however, a less proportion of the veratria was used, owing to the violent constitutional symptoms caused by the first. On this occasion, 2 grains only were rubbed on, yet the diuretic effects were scarcely less marked than before; and these were again accompanied by a degree of debility, which, although not so great as in the preceding instance, still made it a matter of necessity to repeat the stimulants, and to delay the third application for five or six days.

On both occasions, after the first effects of the ointment had subsided, the quantity of urine diminished considerably, but the swelling became daily less in magnitude, and the patient went on improving in a manner that could not have been anticipated. On the fifth or sixth day from the second rubbing, a third, with an ounce of ointment, containing two grains of veratria, was directed to be made use of, as before; and from this time, the dropsy rapidly disappeared; the patient gained strength sufficient to enable him to take active exercise; and at the end of three weeks from the first application of the veratria, he was completely cured, and has since had no return of the disease." 87.

There is a short and concluding chapter on veratria in gout, amaurosis, &c. on which we need not dwell. Our author's experience in these diseases has not been sufficiently extensive to warrant an arrangement under distinct heads; but he has seen enough to prognosticate that, in gout especially, veratria promises to be of great service.

"The best time to employ it appears to be at the very commencement of the accession; and at this period, friction for 20 minutes made over the seat of the pain, with an ointment consisting of twenty grains of veratria to an ounce of lard, has cut short the paroxysm, and has at once enabled the patient to make use of the affected joints." 93.

We have now given a very extensive and fair analysis of the work, and sincerely hope that the experience of others may confirm that of our author. We have commenced a trial of the remedy ourselves, but cannot give any results in the present review. We hope soon to be enabled to report upon the remedy. Meantime, it is necessary to guard against adulterated veratria. The extreme dearness of the article will lead to sophistication, and, therefore, it should only be procured from houses of the very first respectability, regardless of the price. It is probable that the salts of veratria will come into use instead of the base. The only one that has yet been tried is the sulphate, which appears to be far more energetic than the veratria itself—for even half a grain, when rubbed on the skin, produces a degree of heat and tingling amounting to pain.

## XIII.

### Traité de la Vaccine, redigé sur la Demande du Government Francais. Par *M. Bousquet.*

Passing over the introductory matter of this volume, we shall endeavour to glean some of the most interesting and instructive particulars on a subject, which at present engages so much of the attention, not only of medical men, but also of the governments of mighty nations. It was in the year 1815 that the first distinct case of small-pox, occurring in a person who had been properly vaccinated, was made known in France by the Central Committee, and the fears which then began to be entertained respecting the inefficacy of vaccination, as a safeguard against the small-pox, were unfortunately much increased in 1818, when a very formidable epidemic of this latter disease broke out in most parts of Europe, and attacked a very considerable number of those who had hitherto been deemed almost quite secure. The epidemic of Paris in 1825, and especially that of Marseilles in 1828, were, however, the most unfavourable to the credit of the Jennerian discovery in the public estimation, and many persons foolishly permitted themselves to become as sceptical of any good being ever derived from it, as some of its early partisans had been too sanguine in their praises upon its first introduction. The Minister of the Interior, M. Martignac, viewing the question as one of national importance, applied to the Academy of Medicine for information, to enable Government to determine, whether any new public measures should be taken for the eradication of that most grievous pestilence, the small-pox, and to fix what these measures should be. M. Bousquet, who had been for ten years secretary of the Vaccination Committee, was entrusted with the task of drawing up an answer to the Minister's interrogatories. Fortunately for medical science, he has not limited his researches merely to the solution of the precise question submitted to him, but has carefully and extensively examined many others; such as the subject of the varioloid or varioliform eruptions, which, by modifying the features of the genuine small-pox, have had the effect of misleading not a few medical writers. As to the description of the genuine original cow-pox "petite verole, ou picote des vaches," given us by Jenner, M. Bousquet regards it as very imperfect and unsatisfactory. He also dissents from Jenner's opinion, that the grease (eaux aux jambes) in horses is the exciting cause of the pock in cows; it having been supposed that the virus of the one was communicated to the other animal, by the country people who had charge of both. The facts which have been adduced to prove this are, in his opinion by no means conclusive.

In spite of the assertions of some recent authors, M. Bousquet informs us that the genuine cow-pox, in the cow, is of exceedingly rare occurrence, and that therefore, the few opportunities of studying its genuine properties and relations, have hitherto much retarded our knowledge of this very interesting subject. It appears from our author's statements, that the success in producing artificially the cow-pox, by vaccination, varies a good deal at different times; but whether this unsteadiness be connected with particular seasons and states of the atmosphere, has not yet been satisfactorily determined. In the month of May, 1830, by far the greater number of the vaccina-

tions performed by our author entirely failed; and, at the very same time, M. Nanche was equally unsuccessful in his practice. Again, in the following year, the results were almost as unsatisfactory; but the data furnished this time were more precise, and they were most accurately noted. Thus, it was observed that, in the vaccinations performed from the 30th of April to the 7th May, the course of the vesicles advanced so quickly to their complete maturity, that any one might have supposed that they were of ten or twelve, instead of only eight day's standing. There was nothing unusual noticed in the vesicles on the child which had furnished the virus, and the children vaccinated were in all respects healthy. Now five children were vaccinated with the contents of the above-mentioned premature vesicles, and on the eighth day afterwards (14th), the vesicles in four of them were found to be imperfect and ill-formed; while, in the fifth, there were four vesicles on each arm, and these vesicles as much advanced as on the children from whom the matter had been taken. The very reverse of all this was observed on the 17th of the month—the vesicles were then so small and tardy, that they seemed not to have passed the fifth day of vaccination.

In 1832, M. Gonville made similar observations; his vaccinations were quite successful in the months of April and May, but less so in June, and at length they were so unfortunate in July and August, that almost every operation required to be repeated two or three times. The cause of these variations in the action of the cow-pox virus resides, M. Bousquet thinks, in those mysterious, but, in all probability, potent influences, which Sydenham and Baillon have so forcibly illustrated, and proved to exist in the atmosphere. As to our own opinion, we have no doubt that cow-pox, like almost every other disease, especially such as are of a febrile character, are subjected to, and modified by, the operation of what has been denominated, of late years, by the term "medical constitutions." That the hygrometric, thermometric, and other states of the air, play an important part in the formation of morbific agents, will be admitted by almost every one, although the established data on this most curious topic are hitherto scanty and imperfect. Several instances might be adduced to prove, that extremes of heat and of cold have often impeded the right development of the vaccine vesicle; and we know that, in some very warm climates, the medical men find much difficulty in preserving a supply of the virus.

There is a piece of advice given by M. Bousquet in performing the operation, which it may be useful to mention:—The lancet, or whatever instrument is used for introducing the virus, should be held with its point sloping down, so that the virus may fall off by its own weight into the wound; and the skin ought to be kept on the stretch while the puncture is made, for thus the lips of the cut, returning on themselves, retain the virus better. The mere form of the vesicle is of much less consequence, in determining whether it be genuine or spurious, than its development and progress; in the former, it is more slow and gradual, seldom making any appearance until the end of the third, or the beginning of the fourth day, whereas, in the latter, it is much more rapid, and has probably arrived at its maturity, while, in the other, it is still very imperfectly formed. We are not, however to neglect altogether the outward characters of the vesicle; for the central depression, indeed, may be regarded as the anatomical type of the true, proper cow-pox vesicle—it is much less distinct, and may be even quite awanting,

in the false or spurious one: besides this character, in the latter, it consists usually of one cyst only, and not of the cellular or honeycomb structure of the former—hence, the one is drained off by a single puncture, whereas the other requires several, to discharge its contents completely. The progress of the genuine vesicle is almost invariably and uniformly the same, although the period of incubation sometimes exceeds considerably the period of three or four days. Instances have been known, wherein the first set of punctures (supposing that operation has been repeated) did not develope themselves until the second set was made; and again, in other instances, some of the punctures produced their specific irritation much more slowly than others. Occasionally, although rarely, the eruption is not confined to the seat of the punctures, and a few scattered vesicles made their appearance on different parts of the surface. In the course of M. Bousquet's inquiries, he satisfied himself that the contents of the vesicle, if drawn as soon as it makes its appearance, are quite as active and as fit for the purposes of inoculation, as when taken at any future period of its progress. We may, therefore, without the least hesitation, assert that the virus can never be "too young or unripe;" and that it is only an ignorant prejudice of many authors, when they recommend us to await the more complete formation of the pock, in order that we may be more assured of the efficacy of its contents. The latter part of M. Bousquet's work is occupied with the consideration of the more general questions on the subject of the cow-pox, more especially in relation to its effects on the human body, in connexion with those of the small-pox. He regards the cow-pox as a strictly eruptive fever, which, instead of being opposed to and inconsistent with that of variola, as the vague and illogical descriptions of many authors might lead us to suppose, is of a nature analogous to it; indeed, it is the result of this very analogy, that the two diseases have so striking a reciprocity of influence on each other. It is most satisfactory to learn, that the conviction which the very extended researches have left upon his mind, of the paramount importance of vaccination, as an object of national, as well as of individual concern, remains unchanged, or rather has been greatly confirmed. The chief source of the apprehensions which have prevailed, of late years, exists, according to his opinion, in medical men having not rightly understood the analogy which holds betwen the cow-pox and the small-pox, on the one hand, and between the latter and the varioloid and varicellar eruptions, on the other. With justice he puts the question—"Why should cow-pox be supposed or expected to possess exclusively the prerogative of never suffering a relapse, when we know that the congeneral diseases of variola, varioloides, and varicella, are subject to this accident?" Had we reasoned aright, we should have anticipated, *à priori*, to have met with occasional cases of small-pox supervening to vaccination, on the mere ground, that we were aware that a second attack of genuine variola itself happens now and then, although the general rule will not be gainsayed, that this disease affects the system but once.

It is from having allowed themselves to entertain too high an opinion of vaccination at first, that so many persons now undervalue it far below its deserts. Some observers, who admit the full efficacy of the Jennerian discovery, have attempted to account for its more frequent failure within the last 10 years, by supposing that the virus has degenerated, and that it will be necessary to derive it directly from the primary source, viz. the vesicles

on the cow. But this opinion is quite conjectural, and we have a very easy method of testing its correctness, by comparing the vesicles which we observe after vaccination, in the present day, with the descriptions and drawings of those left us by the original authors. M. Bousquet maintains that such a comparison will afford results not at all favourable to the notion of the degeneration of the vaccine virus, in consequence of its repeated transmission through human bodies. It has been asserted that the cicatrices left by the vesicles, of late years, have been less distinct and indented than they used to be; but whether this be true or not, it may be reasonably doubted whether the depth of the scar stands in any appreciable relation to the preservative constitutional effects of the virus; every day we meet with cases, in which a person having very faint scars, or not even a trace of them, resists the variolous poison, while others, who have them well marked, are subjected to its influence. On the whole, there is no good reason for the opinion, that the vaccinal virus has lost any of its properties; and moreover, it is quite unnecessary, says our author, to renew it directly from the cow—a fortunate circumstance, because, up to the present moment, all attempts to do so have proved unsuccessful. (?)

## XIV.

### SIR CHARLES SCUDAMORE ON INHALATION OF IODINE AND CONIUM IN TUBBERCULAR PHTHISIS. Second Edition. 1834.

THIS edition is very considerably altered and improved. The objections which were made to the first edition, of keeping the methodus medendi somewhat secret, and of not stating fully the proportions and preparations of the remedies used by him, are now removed, as the following extract will shew.

"Iodine, mixed with hemlock, constitutes the principal remedy which I have employed.

As, by mixing the tincture of iodine with water, the iodine itself separates into flakes which become precipitated, and as 7000 parts of water are required for its solution, I found it expedient to form a preparation which should be uniform, and preserve its transparency when united with water in any proportions. This admixture is effected by adding together iodine, hydriodate of potash, distilled water, and alcohol. The following is the formula which I prefer on commencing with the treatment of iodine inhalation:

℞. Iodin - - - - - gr. v.
Potassæ Hydriodat - gr. iij.
Aquæ distillat - - ʒv.
Alcoholis - - - - ʒij.
Tinct. conii* - - - ʒvj.—M. fiat mistura.

I found it expedient to use the smallest proportion of the hydriodate which would serve the purpose of rendering the iodine soluble, and not enough to engage much of the iodine itself. The addition of the tincture of conium is im-

* "A saturated tincture."

portant; as, together with its distinct operation as a sedative, it softens the action of the iodine; and this property of diminishing the sharpness of the iodine, during the process of inhaling, is more effectually produced by the previous combination of all the ingredients; but the mixture should not be long kept, as in that case the iodine would undergo considerable change, and its power become too much reduced. Also when it is desired to have the iodine solution in the most active state, the conium, if mixed with it at all, should be added only at the time of using the inhalation.

The following are the other medicinal substances which I have used for the purposes of inhalation:

A saturated solution of pure chlorine gas in distilled water.
A saturated tincture of stramonium, prepared from the dried leaves and stalks.
A saturated tincture of belladonna, prepared from the dried leaves.
A saturated tincture of the lobella inflata.
A spiritous tincture of ipecacuanha, prepared from the roots.
A saturated tincture of digtalis.
Hydrocyanic acid, of the specific gravity .992.
The pure sulphuric æther.

In the history of my treatment I shall have occasion to describe the manner in which I have employed these medicines." 10.

The following case and observations will complete all that is necessary to be stated respecting the *mode* of using inhalation.

"*Bronchitis, acute, and afterwards chronic; Inhalation, as a Part of the Treatment, proving very decidedly useful.*

A gentleman, aged thirty, of slight form, and not of strong constitution, twice ill with pneumonia within the last three years, was attacked with acute bronchitis, and had been ill a fortnight when I was first consulted. He had been bled once from the arm; a blister had been applied; and medicines had been administered, with relief to the most active part of the disease; but I found him suffering from an assemblage of troublesome symptoms. The pulse was frequent, but free from hardness; there was some heat of skin, and, towards morning, after a restless night, perspiration was always considerable, and sometimes excessive. There was some sense of tightness and oppression of the chest, and the breathing was, by very slight exertion, inconveniently hurried. The cough was irritable both by day and night. The expectoration was partly flaky and yellowish, but chiefly of the mucilaginous kind, and very viscid. The tongue was coated; the bowels, for the most part, confined; the urine deposited lateritious sediment.

In similar cases, in which febrile irritation prevailed, as the attendant of some remaining inflammatory action in the bronchial tubes, I had found advantage from joining digtalis with the other ingredients in the state of herb. I used the following in the present instance:

Of digtalis and conium, cut into fine portions, each ten grains; powdered ipecacuanha two grains; water of the temperature of 80°, raised by means of a lamp to 130° or 140°, as the patient should find most comfortable. To be used three times a day.

This inhaling mixture produced very good effects; relieving the irritability of the cough, and producing a more easy expectoration. The urine deposited dense mucus very copiously.

I joined other means of treatment, as the use of alteratives and aperients, with salines and diuretics. I applied the acetic acid solution of cantharides to the chest. The regular blistering plaster had lately produced so much inconvenient strangury, that he was glad to be assured that he would avoid such inconvenience by having this preparation substituted.

In four or five days, I changed the inhaling mixture for that of the iodine and

conium; and from its use, almost without any further internal medicine, all complaint was removed in about a fortnight. The expectoration was changed by its influence, in a very short time, from the ropy state, which I just now described, to flaky mucus: and which ere long, differed but little from the thin secretion which belongs to slight irritation of the membrane.

*Observations.*—Although I should avoid all proposal of inhalation during the state of acute bronchitis, yet I am persuaded of the propriety of adopting the treatment, without delay, after the removal of the inflammatory symptoms. In using the tinctures for inhalation, it is to be considered that the proportion of spirit is very small in the dose of the medicine necessary to be employed; and, becoming so largely diluted with water as it is in the inhaler, the alcoholic stimulus can scarcely be reckoned objectionable, when the disadvantage, if any, is counterbalanced by its causing the properties of the medicine to be volatilised the more readily. But, in any case in which the practitioner may think it an objection, he may easily have recourse to several medicines in the state of herb; namely, digtalis, conium, stramonium, belladonna, lobelia inflata, and perhaps some other plants. When convenient, I would choose them in the fresh state; for then I should expect to obtain their volatile principles in the greatest perfection.

In order to use these herbs to most advantage, it is requisite to have an inhaler with a lamp.* The water should be mixed with the ingredients first at the temperature of 80°, and then gradually raised to 130°, 140°, or even higher, exactly according to the feelings of the patient.

In my future experience, I may probably have more occasion to speak of this mode of using the inhaling treatment. I have, on former occasions, employed the saturated tincture of digitalis with the other tinctures, and have been certain that it has had the effect of retarding the pulse and proving useful.

I shall here advert to the remarkable circumstance of the very copious secretion of mucus appearing in the urine, which often takes place on the subsidence of the acute symptoms in bronchitis. The glass into which the urine is put for inspection, will sometimes exhibit dense mucus almost to the very top. I have regarded such secretions as a curative effort, and as one of the critical indications of the abatement of inflammation." 173.

A considerable number of new cases are added to this edition—several of them important ones. We have tried the inhalation in a few cases of tubercular phthisis, and certainly observed relief from the cough during several hours of the night, after a copious inhalation at bed-time, and this without a succeeding check to the expectoration too often experienced after the exhibition of opiates. Beyond this mitigation of symptoms, our experience does not enable us to say any thing in favour of the remedy.

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* "Mr. Garden, of Oxford Street, has inhalers of this description, very ingeniously constructed, with a small thermometer to be inserted in the middle tube. For the use of the tinctures, the cheaper and more simple inhaler answers perfectly well. The heat of 120°, or even less, is sufficient to bring off the volatile principles of the fluid preparations."

## XV.

A Treatise on Diseases and Injuries of the Nerves. By *Joseph Swan.* A new Edition, very considerably enlarged. 8vo. pp. 351. Ten Copper-plates. London, 1834.

The motto of Mr. Swan is expressive of his modesty andan earnest of his merit. The able investigator of the minute anatomy of the nervous system has approached its diseases and its injuries with a deprecatory quotation from Cicero's Epistles:—

"Non scribo hoc temere. Quo minus familiaris sum, hoc sum ad investigandum curiosior."

Mr. Swan observes that the first edition of the present work had been long disposed of—that many communications had been made to the profession in the last two years on the subject of diseases of the nerves—that these, though numerous and not devoid of value, were insufficient to fill the gaps that intersect this field of science—and finally that *his* aim was partly to supply those obvious deficiencies, principally to direct and to stimulate enquiry. On the whole, this volume might fairly claim to be viewed in the light of a new book, rather than in that of a new edition.

It consists of sixteen chapters, some of which assume a physiological, the majority, of a pathological aspect. The arrangement of the author is not altogether free from objection, and we take the liberty of deviating from it in the following notice of the contents of the work. This is merely a matter of convenience, and whilst our readers will probably gain, Mr. Swan can scarcely lose.

The chapter at which we shall commence is Mr. Swan's eleventh. It is headed, "An experimental inquiry into the process Nature employs for repairing wounds of nerves." The details of twenty-five experiments are given, and the reader is presented with an account of the effects occasioned by division of the sciatic and the pneumo-gastric nerves, by excision of a portion of those trunks, and by ligatures applied to them. For the actual experiments we refer the reader to the work itself, and merely cast a hurried glance at their general results. Mr. Swan observes:—

"It will be seen from these experiments, in the first place, that after a division of a nerve, the extremities of the divided portions become enlarged and more vascular, but especially the upper portion; and coagulable lymph, having the appearance of white of egg, is effused, which soon becomes vascular. In a few days the coagulable lymph from each portion becomes united, and anastomoses form between the blood vessels; the coagulable lymph gradually assumes a firmer texture, and the number of the blood vessels diminishes, and the newly-formed substance appears to contract, like all other cicatrices, so as to bring the extremities of the divided portions nearer and nearer to each other. It is difficult to determine from an experiment on the limb of an animal the exact time at which the nerve again performs its functions. In eight weeks after the division of the sciatic nerve, I have observed a rabbit to be in some degree improved in the use of its leg, but at the end of eighteen weeks it was not perfect. When the nerves of the leg of a horse have been divided just above the foot, they are sufficiently restored to perform their functions in a very great degree in six or eight

weeks; but it must be observed that these nerves are only formed by sensation, and it is very different with the nerves of voluntary motion." 208.

In one of the experiments re-union was effected by granulation.

In punctures and partial divisions of nerves the reparation is accomplished in a similar way, but even on the first infliction of those injuries the functions of the nerve are little impaired. Though such is the consequence of punctures of nerves in the lower animals, the results are frequently serious in man. We may mention a case which we happened to witness, and one of which we have heard. The first is an instance of puncture of the internal plantar nerve. The patient, a boy was hastily climbing some iron railings, when the spike of one penetrated his shoe, and wounded the inside of the sole of the foot. In a week or ten days tetanic symptoms supervened, and rapidly proved fatal. On dissection, the spike was found to have punctured the internal plantar nerve, and a nodule of lymph was developed in it or around it. The second case was one of puncture of the peroneal nerve by a pitchfork. The patient, like the former, died of tetanus. Mr. Brodie was in the habit of alluding to this case in his surgical lectures.

"When a portion of a nerve has been removed, the restorative process is set up in the same way as when there has been merely a division of the nerve; but the extremities of the divided portions afterwards present such appearances, as to lead to a supposition that the nerve will never again be restored of the same size it was before. From the repeated experiments I have made, I had been led almost to conclude that a certain portion of a nerve is never restored after its removal, so as to be able to perform its functions; but that this is not alwaysthe case, the following circumstance will prove.

A horse had been lame for two years, at the end of which time an inch of each nerve going to the foot was cut out; after this he went very well for six months, when he again became lame, and continued so for five months; at the end of this time he appeared to suffer such dreadful pain that he was killed. At the time he was operated on, it was supposed that the disease was the same in both forelegs, so that portions of the nerves of both of them were removed.

On examining the legs after he was killed, one was very much swelled, especially at the foot, where matter was discharged by several sinuses leading to the coffin bone, which was quite carious.

On further examination, the nerves of this leg were found to have reunited, and the new-formed substance was very large, and appeared to have the same structure as that which forms the bond of union when a nerve has been simply divided. The nerves, above the place where they were divided, were found to be much larger than those of the opposite leg in the same place. In the opposite leg, in which there did not appear to be much disease, the nerves had reunited, but the bond of union was not so large as in the other leg." 210.

Mr. Swan is of opinion that the functions of the nerves were again performed through the medium of the new substance. As this is not usually the case when so much as an inch of the nerve has been removed, he concludes that the restoration was due to the irritation occasioned by the disease in the foot. This is certainly a plausible conjecture, but the foot in which there was not "much disease," is said to have also displayed reunion, though not to so great an extent as the other. From some of the experiments it would seem, that disease of the parts *below* the nerve divided or injured is not a very unfrequent occurrence. This may contribute to increase the difficulty of admitting Mr. Swan's ingenious explanation.

The following observations of our author may be added.

"It appears to me that a reproduction of a portion of a nerve is not accomplished without the greatest difficulty, except where there are very frequent communications with other nerves, or except a much increased action of the blood vessels exists in consequence of a diseased state of the part in which the nerve is situated, as in the case related by Mr. Abernethy, where a portion of one of the digital nerves was removed. When a portion of a nerve has been removed, if its reproduction were a desirable object, this circumstance of its growth in diseased limbs makes it probable that it might be much assisted by irritating frictions, electricity, &c.

Although a large portion of a nerve is seldom restored, yet in some instances new nerves are formed to keep up a communication with the brain. In the eighteenth experiment I observed this for the first time. These new nerves had not that almost transparent appearance that the bond of union has, but were white, and exactly like nerves. It appears extraordinary that entirely new nerves should be formed, but it is not more so than that new arteries should be produced, as Dr. Parry has, I think, satisfactorily demonstrated." 212.

The only experiments to which we shall make individual reference are some which Mr. Swan performed upon the nervus vagus in the neck. They were six in number. In three the nerve was tied—in two divided—and in two a portion was excised. We shall offer an abstract of the consequences which were noticed.

In the first experiment each nervus vagus of a dog was tied with a ligature of silk. The general symptoms were a tendency to vomiting—indisposition to eat and a readiness to drink—agitation—and some dyspnœa. On the fifth day the dog died.

The nerve on the right side was nearly divided by the ligature, the neurilema was thickened and quite ulcerated through; also the greatest part of the medullary portion, or that forming the central part of the nerve, was ulcerated through, so that the two ends just hung together. The two portions of this nerve were more vascular than usual to some distance, but this diminished gradually in both portions, with the distance from the ligature. The portion of the nerve on the left side included in the thread was more inclosed in coagulable lymph than that of the right side, and this lymph appeared vascular, so that the nerve seemed enlarged at this part, and the ligature had not pressed it so completely as to entirely cut off the communication between the two ends. The vascularity of the divided extremities, and in the course of the nerve, was the same as in the other side. The inferior cervical ganglia of the sympathetic, and the first dorsal, especially on the left side, with the semilunar ganglia, diplayed very slight vascularity.

The pleura was inflamed, and smeared with purulent matter. The right lung was hepatized, but the left was so in a very slight degree. The inner portion of the pericardium was smeared with a thick glutinous matter, nearly the same as the pleura. The mucous membrane of the larynx and trachea was vascular in a slight degree, and presented some muco-purulent matter with a substance resembling coagulable lymph.

The stomach was much contracted, and a dark vascular spot, of the size of a shilling was observed on its mucous coat at its cardiac end. It contained, as did the intestines, a yellow mucus, principally bile.

In experiment 2, a ligature consisting of two threads was twice passed at the same spot through the right nervus vagus of a large dog. In 21 days

the dog was dull, weak, and thinner. On the 28th day the left eye was turned slightly upwards and outwards and was rather watery. In ten days more he was killed by prussic acid.

On examination, the ligature had been thrown off, the nerve was thickened, and very firmly and rather extensively connected with the surrounding parts. The viscera of the chest were natural. The left thoracic ganglia of the sympathetic nerve were not so white as the right. The inner coat of the stomach was reddened as well as that of the intestines, but there were not any ulcers.

In another experiment no symptoms ensued, and the dog made his escape.

In the fourth experiment the right nervous vagus of a fowl was divided. It was killed three days afterwards. The examination presents no feature of interest.

In the fifth experiment each nervus vagus of a fowl was divided. Great dyspnœa, immediately succeeded and continued during the day, but was diminished on the following. It ate some oats and was much purged. On the sixth day it was found dead. For the first three days it was fed on oats; for the last on barley, bolied potatoes, and bran.

On examination, the extremities of both nerves were very near each other, enlarged into little bulbs, and surrounded by adhesive matter. The lungs were expanded on both sides, and somewhat redder than in the preceding experiment. The lower part of the œsophagus contained a little food, and the crop was very full of barley, in a swollen state, and some potato. The passage to the gizzard contained the same food mixed with much bile, and some of this fluid was also in the lower part of the crop. In the gizzard there was a small quantity of semi-fluid matter, with much bile, which had a dark green colour. There were fluid fæces in the upper part of the intestines, but only mucus in the lower, except the cloaca. The gall bladder was greatly distended with dark-coloured bile. It may be remarked that no oats were found in the alimentary canal, but barley only.

The fact last mentioned is not undeserving of attention. The food which had been taken on the three days immediately succeeding the division of the nerves was found to be digested, a circumstance tending to prove that the influence of the nervi vagi on the function of digestion is not so important as some persons have imagined.

In the sixth experiment five-eighths of an inch of the left nervus vagus were removed from a large terrier. The principal symptoms with which he was long troubled were sickness, and indistinctness of barking and loss of flesh; these gradually and materially went off. A year after the operation he barked loudly, but not perfectly; he frequently vomited up his food and ate it again, but he was well fed, so that his body was sufficiently fleshy; and he breathed well.

At the termination of a year Mr. Swan divided the right nervus vagus. The symptoms that followed were vomiting, agitation, and some difficulty of breathing. On the third day he died.

The right side of the chest was much more capacious than the left. The right lung was not collapsed, was purple in patches, and more solid than natural; the left lung was more solidified, and less in size than the right, and displayed similar purple patches.

The left nervus vagus, from which a part had been removed was united

by apparently new small nerves, and a twig went from the branch of the first cervical, which joins the desending branch of the ninth to the inferior portion. The right was united by a coagulum of blood. The left recurrent nerve was much less than the right.

The stomach was excessively contracted. The viscera were healthy with the exception of a few red spots on the mucous membrane of the superior part of the intestines, which presented the appearance of ecchymosis.

The blood was quite black in the aorta.

In the seventh experiment Mr. Swan cut out a portion measuring a quarter of an inch from the right nervus vagus of a white rabbit. It was hardly affected by the operation, and had litters of young ones afterwards.

In a year and eight months after the former operation Mr. Swan cut out a portion from the left nervus vagus, and removed every nervous twig near the carotid.

The chief subsequent symptom was dyspnœa. It was found dead on the eighth day.

The right side of the chest was flat, and the left side was considerably larger than the right. Both lungs were diseased, the upper two-thirds of each contained many tubercles, a few of which were in a state of suppuration; the lower portion of each lung was free from tubercles. There were purple patches on the sound part of each lung. There were many hydatids in the abdomen, but all the other viscera were sound.

The right trunk of the par vagum had united, and although the bond of union was smaller than the original part, it had the appearance of nerve.

In this and the preceeding experiment an interval of twelve months or upwards had elapsed between the two operations on the nerves. In the one instance new nervous twigs appear to have been formed to supply the place of the portion excised—in the other a nervous cord of diminished diameter seems to have been made the substitute. Yet in both experiments the operation on the remaining nerve (division in the one instance, excision of a part in the other) was followed by the death of the animal. The author thinks that in the last experiment the result would have been more fortunate had tubercles not existed in the lungs. This is of course incapable of demonstration.

Ligature of both nerves was followed by death and inflammation of the lungs and pleura.

The passage of a ligature through one nerve does not seem to have occasioned any very prominent or fatal symptoms.

The division of a single nerve was scarcely productive of appreciable effects.

The division of both nerves occasioned death, preceded by symptoms of dyspnœa. On dissection the lungs were found expanded and reddened. Bile had been freely secreted, and food had been digested.

It is needless and would be useless to draw further inferences from these few facts. The lungs would appear to be more vitally affected than the stomach by experiments on the nervus vagus.

Experiments on this nerve may naturally lead us to reflect on its diseases, if such are appreciable by symptoms or dissection. Mr. Swan has devoted a chapter (the tenth) to their elucidation. It cannot be expected that much new light should be shed on such a subject, and we feel no surprise at the

failure of Mr. Swan to convey any satisfactory or positive information. The prominent fact is one which though diffuse, we will transcribe without material abridgment, as we do not coincide with the opinions of the author on its nature.

The Rev. Mr. Deacon, aged *sixty-two*, had suffered from gout from the early age of seventeen years. For this he had taken considerable quantities of the eau medicinale and Dr. Wilson's medicine. The functions of the stomach had been much impaired for the last seven years.

"Nov. 19, he began to have a difficulty of breathing, which was only perfectly relieved either by a fit of the gout, or the vinous infusion of the colchicum root. When the difficulty of breathing was the worst, he made a whistling noise, as though the glottis was contracted. For some time he was quite free from it. But in the Summer of 1821 he had a violent attack of it, which was thought to have been produced by cold, when the gout came on and relieved him; he took the vinous infusion of colchicum, which removed the gout, but it purged him so violently, that an opiate was given him to restrain it. He began to sleep from this time, and continued so three weeks, except he was roused, when he seemed to know every one about him, but had neither recollection nor judgment beyond this. Leeches, blisters, &c. seemed to relieve him in some degree, but he was not materially better until he took the vinous infusion of colchicum again; after which he continued to mend gradually, but the difficulty of breathing soon returned; and though it yielded once or twice more to the vinous infusion of the colchicum, which always purged him, no lasting good effect was produced. The difficulty of breathing continued, with different degrees of violence, till the time of his death. He never had pain in the chest. His stomach remained in the same craving and insensible state to the last. His body for months had been becoming more and more emaciated. His pulse was generally natural, but very strong. For several weeks he could not take opiates of any sort, or in any quantity, as they made him so uncomfortable. About ten days before he died, he had a teacupful of blood taken from the arm, which somewhat relieved his breathing. He, at this time had much gouty inflammation in his hands. The blood was very much cupped, and had a strong buffy coat, but the next day he was so very faint, that he could with difficulty sit in his chair. He had a cough, which was occasionally troublesome. As nothing seemed to relieve him, and as his state appeared to me to be much approaching that of an animal whose eighth pair of nerves had been divided, he was galvanised. He thought the two first trials gave him some relief. A few nights before he died he was taken with difficulty of breathing to such a degree, and seemed so exhausted, that some wine was given him, and galvanism was again tried. After the first ten minutes, the noise in his breathing left him, and he kept breathing more and more easily, so that when the galvanism had been used for half an hour, he laid down and slept better for several hours, than he had done for some time before. The galvanism was repeated the next day, and he thought himself relieved by it; but this relief was of short duration, for his breathing soon became as bad as ever, and he died a few days after, on the 22d of September.

Within the last three weeks he had been obliged to rise in the night, and sit up a great part of it. Owing to this his legs swelled a little, as he was unable to have them in a horizontal position when he sat up, in consequence of his knees being much contracted. About ten days before he died, purple spots appeared on his feet, and then on the rest of his body; these, however, disappeared entirely in three or four days.

His symptoms never were those strongly marking hydrothorax, and his countenance had not the expression usual in this disease. 173.

We suspect that the majority of those accustomed to morbid anatomy and

the practice of medicine, would recognize the symptoms and anticipate the existence of disease of the heart and effusion in the chest, in the preceding instance. Their grosser apprehension would fail to be struck by the lighter shadows that arrested the attention and excited the reflection of the gentleman before us. They would see in the advanced age of the patient, in the paroxysms of dyspnœa, the orthopnœa, the obvious tendency to anasarca, and the disposition to petechiæ, the signs and the concomitants of what is improperly termed hydrothorax.* They would look with confidence to the examination of the body, and to this we will now refer.

"On opening the abdomen every thing appeared sound. The outside of the stomach was covered with an unusual quantity of veins, but the inside of this viscus had nothing particular in its appearance.

On opening the chest there was much fat. The heart was enlarged and fat, but otherwise every thing about it had a healthy appearance. In the pulmonary artery one sesamoid body was larger than the rest; and in the aorta, one of these bodies was not situated at the edge of the valve, but about its middle. Each side of the chest contained about two pints of a dark-coloured fluid. The lungs were not collapsed, but appeared otherwise healthy.

On tracing the par vagum from the middle of the neck each nerve was flabby, and much smaller than natural, and felt like nerves removed from a putrid body after having been soaked in water. The branches distributed to the lungs appeared as usual, as well as the continuations of the nerves, nearly as far as the termination of the œsophagus, when they were found redder and thicker than usual, and had not a healthy appearance. The left nerve was smaller than the right

A similar state of the lungs has been generally observed after a division of the par vagum in rabbits." 175.

Examination may be said to have disclosed enlargement with a fatty condition of the heart—a quart of dark fluid in each side of the chest—and a flabbiness with apparent diminution of size in the par vagum.

The matter of fact observers to whom we have alluded would probably appeal with confidence and triumph to these results. They would argue with some degree of plausibility that the state of the heart and the fluid in the chest corresponded with the nature of the symptoms during life—that such accordances are daily witnessed—that flabbiness and diminution of size of the par vagum are lesions of very questionable character, as we cannot pronounce what should be the bulk, nor what is the consistence of this or of other nerves in different subjects and in different diseases.

Mr. Swan would appear to be prepared for such objections. He subjoins the following statements:

"In order to be better satisfied with regard to the diminution of the size of the par vagum in the preceding case, I was led to compare it with that in other subjects; and in dissecting two destroyed by consumption, the left lungs were diseased in a much greater degree than the right; both trunks of the par vagum were smaller than usual, and especially when compared with those of a subject

* We need scarcely explain this allusion. Hydrothorax is commonly a symptom and a consequence of organic alterations of the heart. The symptoms said to be those of hydrothorax may exist when it is absent, and result from the condition of the heart. Some of the symptoms, for example, orthopnœa, are undoubtedly aggravated on the supervention of effusion.

destroyed by empyema in which the lungs were sound; and the left trunk was smaller than the right. In both of these subjects, as well as in another, very considerable disease existed in the intestines. In one I examined the alimentary canal from one end to the other, and through its whole length beyond the stomach, very little space was left where the ulcerations of the mucous membrane did not exist, most of them varying in size from a pea to half-a-crown." 175.

Mr. Swan's analogy would seem to tell against himself. The diminution of the nervi vagi in the case of phthisis pulmonalis must be viewed, if regarded with interest at all, as a consequence or cause of that disease. If deemed to be the former, it might also be the consequence of thoracic disease in the case at issue—if the latter, we presume that the cautious reader would pause for proof and demand investigation. Mr. Swan would hesitate at giving utterance to so startling an hypothesis.

In examining the bodies of those who have died of consumption, Mr. Swan has frequently found the par vagum, and particularly the posterior pulmonary plexuses incroached on by enlarged absorbent glands. He believes that these glands have often been affected before the lungs have become diseased, and by their progressive enlargements have implicated the nerves and excited irritation in the lungs.

"In consumption, I believe, many of the distressing symptoms are frequently produced by the stretching of these nerves by enlarged glands. In these cases there have not been any decidedly inflammatory symptoms or much quickness of the pulse. There has been a troublesome cough without much expectoration. The appetite has been whimsical. There have been frequent attacks of difficulty of breathing, sometimes of oppression with a sense of suffocation, and these symptoms have been relieved by some stimulus, as a small quantity of brandy and water, or ammoniated tincture of valerian, and brought on again by any thing that disagreed with the stomach. There has been a distressing nausea, which was relieved by opiates. In one of these cases, a gland as big as a pigeon's egg was found stretching the left trunk of the par vagum and the branches forming the posterior pulmonary plexus." 177.

Lobstein describes the same stretching of the par vagum by absorbent glands. He has often found stony concretions adhere to the nerves, and be separable only by force. He has found the same thing in the solar plexus, where it approches the supra renal gland, and in the trunk of the par vagum itself separating its fibrils, but not impairing the functions of the stomach and the lungs.

"I examined a tumour extending towards the epigastric region and firmly adhering to the small curvature of the stomach. Both trunks of the par vagum were broken, the right one formed a lengthened ganglion from which three tender branches went off. The patient, a man forty years old, was seized with sudden heartburn, and tormented with excruciating pains in the back and the interscapular region. To these symptoms were added an obstinate constipation and the most severe tormina, from which he died after a space of seven weeks. This disease was certainly of long standing and not marked by any symptoms, but from the time the par vagum was daily stretched and then torn through by the tumour, the most violent symptoms were manifested. It could not have happened otherwise, than that the twitchings, conveyed to the semilunar ganglion and the right trunk of the sympathetic nerve, should have produced the dreadful pain in the abdomen and back." 178.

Mr. Swan makes allusion to the ulceration of the intestines that occurs in

the latter stages of consumption. He accounts for this by supposing that their mucous membrane effuses a poisonous exhalation similar to that which is generated in the lungs.

We cannot deem this a felicitious idea. We see no more reason for supposing that a poisonous exhalation occurs in phthisis than in fever, idiopathic or hectic, where ulcerations of the bowels are frequently, nay constantly, observed. The morbid anatomist is sufficiently aware that a febrile state of system cannot long exist, no matter what its cause may have been, without a marked disposition to inflammation and ulceration of the follicles of the intestines. Why this should be we will not now inquire, but the circumstances under which it is observed are so numerous and so varied, that the doctrine of a poisonous exhalation could only be admitted or applied with the greatest difficulty and the greatest danger.

Our space is now so nearly exhausted that necessity compels us to select the shortest chapter to complete this notice. It treats of tumors in nerves.

A tumor in the nerve causes very violent pain. It is generally solid and formed by the interposition of adhesive matter between the fibrils; but sometimes it is a cyst containing a gelatinous matter, which has been generated in the substance of the nerve. It varies in size, from a grain of wheat to a substance of considerable magnitude. It may be distinguished from all other tumors by the excessive pain produced by pressure, and by the extension of this in the course of the affected nerve. It is generally moveable from side to side only as the upper and lower extremities are more or less confined by the nerve. If it be not removed the violent pain gradually wears away the strength of the sufferer, and he dies at last completely exhausted.

Epilepsy is not uncommonly produced by tumour in a nerve, and removed by its removal.

Small tumors are not unfrequently seated in the cutaneous nerves, and are felt immediately beneath the skin. Most surgeons in extensive or in hospital practice must have met with cases of this description. Mr. Swan relates one or two.

*Case.* Mrs. H. had felt for two years a pain in a small spot about the middle of the leg. A small tumour could be then distinguished, which, when pressed, was extremely painful. In seven years it had attained the size of a large pea. The suffering was very great, and was always brought on and aggravated by surprise, fear, or any affection of the mind, and likewise by cold. Keeping the whole body warm always relieved the pain. A surgeon divided the skin over it, and kept the wound open for three months by caustic frequently applied. This treatment was not productive of benefit. Mr. Swan cut out the tumour with the surrounding portion of skin. When divided it presented a cartilaginous appearance, and a cutaneous nerve was seen passing between it and the skin, and an expansion of the nerve was spread over it. After its removal all the distressing symptoms left her, and never returned.

M. Beclard, when a student, had a small and very painful tumour in the leg, about the size of a grain of wheat, which disappeared spontaneously some months after he had removed from a very unhealthy apartment he had for long time previously occupied.

"Small tumours or enlargements of various nerves are observed on dissection, but as the history of the subjects is not known, it can only be conjectured that these might have occasioned pains that could not be satisfactorily accounted for during the patient's life. In one subject there was a considerable enlargement of the digital nerve supplying the inner edge of each great toe; and at the outer side of each foot, at the junction of the metatarsal bone with the first phalanx, there was a ganglion or bursa the size of a horse-bean, which adhered to a digital nerve, and from this an enlarged branch was continued into its cavity. These diseases are the cause of very great inconvenience, and ought not to be roughly treated." 89.

We might mention some cases of small tumours, of the size of peas, or smaller, in cutaneous nerves. They produce extreme and sometimes agonizing pain, generally experienced in the course of the nervous branch.

Mr. Swan observes that the only effectual remedy is excision of the tumour and of some of the nerve above it and below it. This removal of part of a cutaneous nerve is of little moment.

But tumors or other morbid conditions implicate nerves of more magnitude and consequence. A case of Sir Charles Bell's, of Dr. Denmark's, and of Sir Everard Home's, is severally quoted by our author.

*Case.* A man is stated by the first of these gentlemen to have bruised the back, and to have apparently recovered from the injury. Some time afterwards he began to be much troubled with a violent pain in his foot, which he suffered for two years. At the end of this time a tumour was discovered in the ham, which, when pressed on, did not give any particular pain, but rather, a sense of pricking numbness down the leg. He was then in a dying state, and only lived a few days afterwards.

On dissection, some nerves were found running over the tumour. The sciatic nerve entered into the substance of the tumour, but the fibular nerve, though close on it, was not incorporated with it.

The case of Dr. Denmark is probably familiar to the majority of our readers. Yet we will introduce it on account of its intrinsic interest.

*Case.* A man had a small tumour in the arm, which followed a gun-shot wound, produced very violent symptoms, and was cured by amputation of the arm.

On dissection of the limb the median nerve seemed to be blended with, and intimately attached to, the wounded parts for the space of an inch. It had been wounded, and at the place of the injury was thickened to twice its natural diameter, and seemed as if contracted in length. On dividing the fibres in the posterior part of the wounded nerve, a small portion of nerve was found firmly imbedded in it. The nerve was evidently thickened both above and below the wound.

Mr. Swan now enters on an important question. Is it better to excise a portion of the nerve affected with a tumour or disease—to attempt the removal of the latter alone—or simply to divide the nerve above the tumour.

The latter proposal may be speedily disposed of. It is only a fruitless and a temporary expedient. As soon as the divided portions reunite, the conditions of the nerve and of the malady are nearly re-established, as before.

The effects of excision of the tumour are in some degree exemplified by a case which occurred to Sir Everard Home. Here we must abruptly pause. The subject will be resumed in our succeeding Number.

# Periscope;

OR,

## CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

I.

## SPIRIT OF THE ENGLISH PERIODICALS, AND NOTICES OF ENGLISH MEDICAL LITERATURE.

I. Suggestions tending to Inquiries into the Nature and Treatment of Cerebral Diseases. By Martin Paine, M. D. New York.*

Whether the structural peculiarities of the brain be surveyed with the interested eye of the philosophical anatomist, or whether the still more interesting physiology of this organ, so far as yet made known to us, engage reflection, the supreme importance of seizing on all legitimate means, in the honest endeavour of furthering our acquaintance with its phenomena, must ever be acknowledged as paramount by the discriminating members of our enlightened profession.

There are few organs of the human system, with the more intricate economy of whose functions we may truly say that, as yet, we are so deficiently conversant. By every conscientious physician, how much is not the necessity felt, expressed, and responded to, as existing, for anxious caution in attempting the management of the most trivial manifestations of the existence of diseased action, referable to the contents of the cranium? Yet, that no department of professional inquiry has been more zealously honored with experimental investigation and observations carefully conducted, with the view of eliciting at least some knowledge of its many physiologic and pathologic mysteries, is amply attested by the recorded labours of a host of the most standard authors. From a list so long, it may suffice to enumerate, of the more recent—Kellie and Munro, Cheyne, Abercrombie, and Alison, Craigie, &c. and last of all Bright, among British contributors; and what reader, of ordinary memory, is not familiar with the names and views of Portal, Lallemand, Tiedemann, and Bricheteau, Serres, Fleurens, Fouquier, Rouchoux, and Riobé?

With these prefatory remarks, which have been suggested by a perusal of an original communication on cerebral affections with which we have been expressly favoured by Dr. Paine (of New York), we hasten to circulate among the author's cis-Atlantic brethren a summary of the views broached in his manuscript, relative to points confessedly of great moment in the pathology and treatment of a truly interesting class of affections.

Marked and conflicting differences of opinion prevail, relative to the proximate cause of cerebral affections. These differences we may truly ascribe to the widely-opposite conclusions which physiologists have arrived at, as to the functions of the brain, more particularly of

* The Editor having received a long paper from Dr. Paine, of New York, is unable to insert it in the Med.-Chir. Review, into which no original articles can be admitted, excepting some short cases or pieces of intelligence. The Editor, however, has had a short analysis of Dr. Paine's paper drawn up, and the original is preserved for the author, should he desire its return.—J. J.

the state of its circulation. Dr. Paine instituted a suite of experiments to determine, if possible, the normal state of the brain, so far as information so derived might be connected with its anormal changes.

That the brain is naturally incompressible, he regards as an established truth. But, with reference to the opinion that the cranium must necessarily always be filled, he thinks "the spaces which exist between the parietes of the ventricles, between the membranes, the skull, the convolutions of the brain, &c. are not necessarily occupied by water, but may be, in part, pervaded by an aqueous vapour, which is of course susceptible of condensation, not only from the decline of caloric after death, but by any power exceeding its force of expansion."

To get rid of sources of ambiguity, connected with the otherwise undetermined question, whether such vapour existed naturally, or was produced during changes in the condition of the brain, experiments were performed (on calves) so as to exhaust the system of its blood. With the results of Kellie's experiments, Dr. Paine premises a statement of his unacquaintance, but hazards a supposition that the animals may have been so bled by Kellie, as to occasion fatal syncope "before the body was fully deprived of the circulating fluid;" and that, "as condensation of the vapour has taken place after the death of the animal, the blood has rushed into the brain to supply the vacuum. Such, indeed, would be a necessary consequence of vapour so condensed, and any blood remaining in the aorta, the cava, or the great branches connected with those of the head. For this reason, we shall always find the cavity of the skull, in the human subject, fully occupied by solid and fluid matter, to whatever extent depletion may have been carried, unless the patient may have been trepanned during life, or before any reduction of the natural temperature. It does not, therefore, follow that vapour cannot have existed within the cavity of the skull during life, because it is fully occupied by incompressible matter after death."

The calves were experimented on in this way:—The aorta, near the heart (but generally the descending cava), was opened, when so rapid was the hæmorrhage, that the heart's action ceased only on the vessel's being fully emptied. Lest condensation of vapour should possibly have arisen from reduction of temperature, the head was instantly removed after the animal died. On examination, Dr. Paine "uniformly found the vessels of the brain and the membranes nearly deprived of their contents, and the organ perfectly blanched." No disproportion in the quantity of the blood was observed, whether the animal had been trepanned, or the external air excluded. The serum exhibited only "a slight tinge of red," when the brain was opened up, therefore there could be but very little blood in its vessels, or those of the pia mater. Not more than half a drachm, and "always quite as much when the animal had been trepanned," was observed in the sinuses of the dura mater. Calves were judiciously selected in preference to dogs, being less troublesome, and probably less liable to cerebral excitement, during "an operation requiring some dissection."

The cranial contents were determined by comparing their weight with a bulk of distilled water, equal to the capacity of the cavity. The dura mater was not included, and its sinuses were not disturbed so as to admit the entrance of water. Here are the results:—

| | ozs. | drs. | grs. |
|---|---|---|---|
| "1. Brain—skull trepanned | 10 | 4 | 20 |
| Water distilled . . . . . | 10 | 4 | 10 |
| 2. Brain—skull trepanned | 9 | 4 | 25 |
| Water distilled . . . . . | 9 | 2 | 0 |
| 3. Brain—skull trepanned | 10 | 3 | 26 |
| Water distilled . . . . . | 10 | 2 | 6 |
| 1. Brain—skull entire . . | 11 | 1 | 5 |
| Water distilled . . . . . | 10 | 7 | 20 |
| 2. Brain—skull entire . . | 10 | 6 | 10 |
| Water distilled . . . . . | 10 | 4 | 50 |
| 3. Brain—skull entire . . | 10 | 2 | 40 |
| Water distilled . . . . . | 10 | 0 | 52 |

Corresponding results attended many other similar experiments."

He uniformly found the difference between the weight of the *human* brain, and of distilled waters, to correspond

with the difference in their specific gravities. On injecting quicksilver, an equal weight of bloody serum was always expelled. The average quantity of quicksilver admitted, on injection, into the brains of animals bled to death, was "two pounds in brains weighing ten ounces" (℥x.); the sinuses of the dura mater admitted the maximum of this proportion.

If these experiments be correct, and otherwise trustworthy, less blood circulates within the head than has been supposed; and the amount of sanguineous effusion has probably been overrated, unless the ratio be higher in the human species. In those extraordinary cases where even more than two pounds of blood have been recorded as effused, Dr. Paine thinks the serum must have been diminished by previous disease, and an increased quantity of blood made to circulate within the head, "or a corresponding production of vapour" (p. 8). Perhaps, too, suggests Dr. Paine, "it would not be ascribing too much of the sentient principle to Nature, should we imagine that such a provision takes place for the production of a compressible vapour, when such a concurrence would promote the safety of the brain."

Independently of experiments, we are authorized in believing the circulation within the substance of the brain to be slow, and the quantity of blood small. As the organ chiefly fills the cranial cavity, little space only can be allotted to the membranes, and still less to their chief vessels. Experiments sustain the conclusions derived from anatomical facts, that the quantity of blood is much more reduced than has often been conjectured. The very sparing provision of absorbents with which the brain is provided (if any?) is a negative argument, in Dr. Paine's opinion, "that the brain has less use for blood than other parts of the system, where these vessels abound." To maintain a slow circulation, an abundant and equable supply of blood was required; we find this provision made. Are not those vessels large and powerful, which convey blood from the aorta to the confines of the brain? and do we not see the brain carefully protected against the force of its own circulation? Here we cannot but admire the philosophic views entertained by Dr. Paine, which, however, the necessary limits allotted for this article only permit us thus to glance at.

The rate at which the blood circulates in the membranes, we infer to be much more active than that within the proper substance of the organ; the bulk of transmitted blood being confined to the membranes. Yet from the tortuous course of their vessels, the circulatory fluid must pass slowly compared to its progress in other great organs. It is probable too, from such considerations, that *in health the proportion of serum varies:* if so, a variable state within the cranium is denoted; and the normal proportion of blood being ever probably nearly the same, it follows, in Dr. Paine's opinion, that "any preternatural space must have been occupied by vapour." In accordance with the results of our author's experiments, we have these principles deduced for practical guidance, that—

"Blood may be abstracted from the brain in the same manner and to the same extent as from other organs.

That there takes place necessarily an active contraction of the blood-vessels of the brain, as the exhaustion of their blood follows equally when the external air is not admitted within the cavity of the cranium.

That there must be a production or an expansion of aqueous vapour corresponding in bulk and elasticity with the diminished quantity of blood and the decrease of pressure from the force of the heart and blood-vessels.

That the natural proportion of blood found in the brain, after its copious abstraction from the system, arises from a quantity still remaining in the vessels connected with those of the head, and which rushes into the brain after death to supply the vacuum produced by the condensation of vapour generated during the contraction of the cerebral vessels."

The living system seems under the governance of uniform laws. Universal contraction of the blood-vessels—a

contraction greater in the extreme vessels than what is explicable by the mere loss—is observed to be attendant on abstraction of blood. Is not a similar contraction extended to the vessels of the brain, not less from the withdrawal of blood, than likewise "through the influence of sympathy with the vascular action throughout the body, an inference rendered still more probable by the propagation of the *sympathetic nerve along the arteries of the brain*; that the topical abstraction of blood by cupping and leeching, if not also vesication, operates by producing a sympathetic contraction of the vessels within the brain; that inflammation of the brain is relieved on a common principle; and that opposite inferences would involve the remarkable exemption of a part from the operation of general laws, and a violation of the usual simplicity of design."?

The varying changes in the circulation of the brain, renders probable the existence of an elastic vapour. This is rendered yet more probable from the rapid production of vapour when the temperature is at 98° (Fahr. of course? REV.) atmospheric pressure being removed: and 72° being the point at which water would boil within the cranium "were there no resistance from the circulating fluids." Equal increments of temperature, by increasing in geometric progression the force of vapour, would tend to embarrass the functions of the brain. But an admirable provision of nature guards against the occurrence of such casualties. The bony inclosure excludes the influence of atmospheric pressure, "the generation of an elastic vapour provided, the pressure of which at 98° to the ratio of steam at 212, is as $1\frac{3}{4}$ to 30. It will therefore admit of an easy condensation, such probably as would be produced by any increased determination of blood to the head, and more especially by blood extravasated; and however the general force of the circulation may be undetermined, it is abundantly obvious, from the tortuous course of the vessels, and their minute subdivision before entering the substance of the brain, that the current is here sluggish and easily resisted. It will not, therefore, be difficult to imagine that there exists this further harmonious relation, by which a modified, or the ordinary force of the circulating fluid is accurately counterbalanced by the aqueous vapour."

The minute subdivision of vessels before entering the substance of the brain—the obstacles checking the impetus of blood from the heart's action—the absence of valves in the cerebral veins—the remarkable distribution of the *sympathetic nerve*, &c. are, in Dr. Paine's opinion, each and so many "powerful motives for believing that the circulation in the brain is especially dependant on a specific action of the vessels themselves." Experiments tend to show, that if vapour exist naturally, in quantity it must be small. A small quantity, however, is quite sufficient for meeting the exigencies its purpose responds to. This vapour, by subsequent enquirers, may yet be found to enact a most influential part in the cerebral economy; its great compressibility admitting of rapid changes in the quantity of circulating fluid; and by which, "in severe congestions, mechanical pressure is partly obviated, and the circulation less embarrassed in portions of the organ not involved in disease." "We may yet learn that the unvarying temperature of the higher order of animals has some reference to the uniformity and the degree of elasticity of this vapour, and the integrity of the great sensorium commune." Dr. Paine then carries the tendency of these probabilities farther. In alluding to animal temperature sinking when the heart's action is maintained, *in decapitated animals*, by artificial respiration, he thinks this affords further evidence of the "particular importance of temperature, and inferentially of vapour to the functions of the brain, and beautifully illustrating an extended uniformity of design in making this organ the regulator of the caloric necessary to the production of vapour of a certain degree of elasticity."

The probable law, that fractional parts of the system have the power of generating heat, is not militated against

nor interfered with by the above hypothesis: but that the brain has a controlling influence over temperature, Dr. Paine considers established beyond question. The important office of "a specific temperature of the brain" is, he thinks, indicated by the phenomena attendant on any interruption of that presiding influence of the brain. If the production of vapour under the most probable circumstances could be established, the uniformity of the great principles of Nature would be recognized. No longer would there exist any necessity to form new doctrines to explain "analogous changes which have acquired the force of established laws in other organs; the treatment of cerebral congestion or inflammation will be again placed on the broad principle which determines the treatment of similar affections in every other part of the body; and when the organ becomes the subject of venous plethora or of high vascular action—when the carotids are beating with a violence that communicates motion to the head, while the pulse in the extremities is low, feeble, and oppressed; when the skin is cold, and the blood, which may not be determined to the head, is accumulated about the abdominal viscera, and the heart pulsates with exhausted efforts, we shall be no longer obliged to adopt the difficult rationale, that the abstraction of blood diminishes the violence of action within the brain by its impression on the *vis a tergo*. We shall see it exerting its influence on the vessels within the brain, as it obviously does on those of the abdominal viscera which may be simultaneously affected by congestion; we shall not doubt that it equally induces a change of action in the vessels attended by their contraction, in all the organs that may be involved in analogous affections; and we shall the more readily assent to this proposition and abandon the notion of a diminished *vis a tergo*, when we find, as those changes progress, the pulse rises in strength and fulness, and the heart beats with more than natural energy; which now indeed may require the further abstraction of blood to lessen its violence and remove the evil it originally produced; now, indeed, the 'vis a tergo' may have become a motive for continued depletion."

From a lengthened paragraph of highly ingenious reasoning, Dr. Paine draws as a corollary—that the force of the momentum of the circulation within the brain may be determined "with an approach to accuracy;" and that its force must be "nearly in the ratio of the expansion of vapour at 98 degrees, removed from atmospheric pressure."

With one other extract we must reluctantly conclude this notice.

"It will also follow, if this vapour exist in the natural state of the brain, that in many constitutional affections and local inflammations of the brain or of other organs which increase the force of the circulation, that there should be a greater production of heat for the purpose of augmenting the resistance of the aqueous vapour; and accordingly we often find an elevation of temperature which would seem to be quite adequate to the production of a vapour of sufficient elasticity to counteract the increased force of the circulation. Such an increase of temperature is probably often attendant on affections of the brain which precede sanguineous effusions; and a greater development of vapour taking place in consequence, there would ensue a diminution of the fluids, most probably of the serum, affording thus an opportunity for those extraordinary extravasations which have been occasionally noticed."

Great as are the very apparent benefits ever accruing from reiteration apparent at least in the judgment of all who truly apprehend the ever advancing nature of medicine and the collateral sciences—yet we have refrained from interpolating judicial comments of any length with our analysis of Dr. Paine's paper, beyond what were fairly required at our hands, in endeavouring to render justice to the views it contains. Want of space might be urged on the present occasion; yet we conceive that it will be consulting our reader's interests best to refer to the first volume of the "Analytical Series" of the Med.-Chir. Rev. for 1820, in the opening article of which will be

found a range of criticism, the perusal of which, in connexion with the present article, will be seen to bear pertinently on many of the opinions advanced by Dr. Paine. Meanwhile we have to express to the author our sense of obligation for the interesting paper which he has transmitted for our use; and we conceive, that we far from under-rate either the tendency, or disparage the value of the results of his ingeniously devised experiments, when we say, that they need farther confirmation at the hands of others. Confident are we, that Dr. P.'s brethren on this side the Atlantic will not fail in extending to his paper that attention which its intrinsic merits command. We would sincerely recommend Dr. Paine to prosecute above all things the good work he has begun, and avail himself of his earliest leisure to mature by reflection, a digest of his farthered experience founded on observation and experiment. We take the liberty, in the name of our countrymen, to assure him, that his being influenced (among other reasons) to offer his paper for publication, in London, "was not the least—that the tribute was due to the English pathologists, of first submitting to their examination any thing that may be advanced as new, regarding the physiology or pathology of the brain,"—is a compliment from an American physician, which will be received with the *con amore* spirit in which it is offered.

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## II. DR. BEATTY ON THE SECALE CORNUTUM.*

We all know the contradictory opinions which have been given of the specific effects of the secale cornutum—some denying it any peculiar powers of producing uterine contraction—others extending its sphere of action to a great extent, and to several diseases. Dr. B. relates the following case, which we shall condense, with the view of contributing to our knowledge on this point.

Mrs. K. ætat. 35, pregnant of her fourth child, fell in labour on the morning of June 21. The pains were slight, the membranes gave way, and the waters drained off. The same state continued next day. In the afternoon the pains increased, and Dr. B. was summoned. The pains, however, had now entirely subsided—the head of the child presented, and almost touched the perineum—the os uteri was dilated, and the parts relaxed. Hour after hour passed, but no recurrence of uterine pains took place. After six hours absence of action, our author determined to exhibit the ergot of rye. One drachm of the powder was infused in four ounces of boiling water for five minutes. The fluid was then strained through muslin, and a third of the powder caught on the strainer was mixed with half the fluid, and exhibited to the patient. She had not swallowed it five minutes when the pains came on, with considerable force, and continued to increase in severity and duration, so that at last there was no intermission. In less than 20 minutes the labour was terminated by the expulsion of a living child, followed by the placenta.

The diversity of opinion which obtains relative to the operation of ergot of rye, must, we think with Dr. B., depend chiefly on the quality of the medicine as influenced by the season of the year at which it is gathered.

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## III. HOW TO RENDER SULPHATE OF MAGNESIA AGREEABLE. By Dr. HENRY.

Saturate any quantity of cold water with sulphate of magnesia; filter through paper, and add to every seven ounces of the solution one ounce of *dilute* sulphuric acid (Dubl. and Ed. Pharm.) one table-spoonful in a wine-glass full of water, for a dose. This dose contains about two drachms of sulphate of magnesia, and 30 minims of dilute sulph. acid, of the Dublin and Edin. Pharmacopœias, but full 40 minims of the London Dispensatory. The dose is to be repeated every two or three hours till the desired effect is produced.

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* Dublin Journal, No. XII.

Dr. Henry praises the formula, asserting that it combines various good qualities. It never fails to move the bowels—is quick in its operation—never produces hypercatharsis—gives rise to no nausea—appeases irritability of the stomach—signally relieves flatulence—produces an agreeable sensation of warmth in the stomach—is free from griping effects—can be taken for a great length of time without inconvenience—is free from the bitter nauseous taste of the sulph. magnes.—is cheap—easily procured—and keeps for any length of time.

The following, we should think, would be a very similar extemporaneous form of prescription.

℞. Sulph. magnes. . . ʒvj.
Aquæ puræ. . . . . ʒvijss.
Acidi sulph. dil. . . ʒjss. ad ʒij.
Fiat solutio, capiat tertiam partem alternis horis donec alvus soluta fuerit.
Sigr. "Solutio acida salina."

P. S. We have tried the foregoing formula, and certainly the nauseous taste of the sulph. magnes. is considerably abated. To our taste, the acidity is rather too predominant—ED.

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IV. CONVERSION OF THE RIGHT LUNG INTO ENCEPHALOID STRUCTURE. By Dr. GRAVES.

In the 12th Number of the Dublin Medical Journal, the case above-mentioned is detailed by the able pathologist and Professor alluded to.

John Keating, ætat. 36, of muscular form, was re-admitted into the Meath Hospital 1st May, 1833, after a month's absence. In the preceding Summer, he experienced occasional pains in the right side of the chest, increased on deep inspiration. In November (32), he was attacked with cough, dyspnœa, muco-sanguineous expectoration, and constipation. Soon afterwards he perceived œdema of the face and neck. For this and other symptoms he entered the Meath Hospital in February, 33, labouring under symptoms of the same character. Dr. Stokes used mercurials, blisters, and sanguineous depletion. He went out improved in April. His symptoms now are included in the following description.

"His chief distress arose from excessive dyspnœa, almost amounting to orthopnœa; when he lay down, the only position in which he could breathe tolerably was on the right side. After a few weeks he found it impossible even to do this, and for eighteen or twenty days before his death he sat in his bed night and day, leaning forward as far as possible, and supporting his head by means of a pillow placed on his knees. A state more piteous could scarcely be imagined. When admitted, his dyspnœa was increased by the least exertion, which brought on palpitations of the heart. He had a dry cough, with occasional scanty expectoration slightly tinged with blood; no pain in chest, with the exception of slight stitches on making a full inspiration. He experienced some difficulty of swallowing, and referred the cause of obstruction to the lower part of the throat. There is no soreness in any part of the chest, but he complains of some pain about the right shoulder. His face is bloated, pale, and looks as if it were slightly œdematous; this, together with a certain appearance of the eyes, as if the balls were somewhat protruded from the sockets, and a marked dilatation of the nostrils during breathing, gives his countenance an expression of distress and suffering. The right jugular vein was much distended, as were the veins in the right axilla, but this symptom was chiefly remarkable on the surface of the belly, where two veins corresponding to the situation of the superior epigastric artery, pursued a remarkably tortuous course along each side of the linea alba, being turgid and dilated to the size of swans' quills.*

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* "This circumstance indicating some obstruction at the right side of the heart, I then considered as affording indubitable evidence of disease of the heart itself. The dissection proved that the cause lay not in the heart, but in the impervious state of the right lung, in consequence of which, the black

His bowels were constipated, and subject to griping pains. Urine scanty and high colored; loss of appetite; night sweats; slight thirst, tongue clean, pulse 100, regular, and compressible.

*Examination of chest.*—The intercostal spaces on the left side, are more distinct, deeper, and more dilated in respiration, than those on the right; the latter, however, although not so well marked, are by no means obliterated or distended by pressure from within. The right side of the chest measured about half an inch less than the left.

*Percussion.*—Left side anteriorly, a clear sound every where, until we came within an inch of the sternal median line, where it became dull. Posteriorly, every where a clear sound. Right side, universally over every part, as dull as possible.

*Respiration.*—Puerile over the whole of left side, except on approaching the sternal median line, where it assumes a tracheal character. This tracheal respiration is observed over a great part of the anterior part of the right side, where it is very loud and distinct above the mamma, feebler immediately below it, and is almost entirely lost still lower. On the posterior part of the right side, the loudness and tone of the respiration are not, by any means, so decidedly tracheal as anteriorly; to some, the sound heard appears to be more allied to bronchial respiration, and it is certainly bronchial in one part, near the spine. No râles are audible in any part of the chest.

*Voice.*—At the upper and anterior part of the right side, the voice is resonant, approaching to, if not identical with bronchophony; elsewhere, nothing remarkable was observed with respect to the voice.

*Heart.*—Pulsates in its natural situation, but its sounds are heard over a great extent, being audible under both clavicles, and over the whole of the right side. Right side of chest, during respiration, obviously moves much less than the left, and when he speaks the hand placed on it feels the vibrations caused by the voice to be feebler on the right side than on the left.

The physical phenomena here detailed, remained unvaried until his death, except that all traces of bronchial respiration soon disappeared from the right side of his chest, except at one spot near the spine, and where any thing was heard in other parts, it was now evidently a tracheal wheezing which marked all other sounds."

Soon after his entrance into the Hospital, his liver was felt descending below the margin of the ribs, forming a hard visible tumour in the hypochondrium, his stools appearing clay-coloured and the skin jaundiced. Another curious phenomenon was, that whenever he lay down, an instant loud wheezing was heard in his chest, accompanied by a sense of imminent suffocation. There was also increasing dysphagia.

DISSECTION.

"Left lung collapsed, perfectly healthy. Right lung, or rather the contents of the right side of the thorax, adhere every where to the parietes, by means of an intimate adhesion between pleura costalis, and pulmonalis. The pleura is exceedingly thickened and dense. In place of the right lung was found a solid mass, weighing more than six pounds, with an irregular, somewhat modulated surface; this mass filled completely the right

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blood had its exit from the right side impeded, none, or nearly none, passing through the pulmonary artery to the right lung. In truth, engorgement of the venous system, although it may indicate an obstruction somewhere in the central portion of the system of black blood, yet it by no means points out the exact seat of that obstruction; the obstruction may occasionally be even on the left side of the heart. With regard to the serpentine course of the abdominal veins above described, I find several such cases recorded, particularly one by Dr. Wright of Baltimore, in his contributions to cardiac pathology, and one of a very remarkable nature by M. Renaud, in which the superficial veins of the abdominal parietes carried on a collateral circulation where the *vena cava* was obliterated."

cavity, but did not protrude between the ribs, so as to distend, notably, the intercostal spaces; it encroached, however, upon the other side of the chest, extending a little beyond the median line, enveloping, and nearly concealing from view, the pericardium, great vessels, and trachea. This solid mass was removed with difficulty on account of the adhesions, and was found to present, over a small portion of its posterior surface, a thin stratum of lung, nearly impervious to the air. The solid mass was found to be every where homogeneous, firm, of a white colour, slightly stained with bile, and tolerably firm and consistent in its structure, which resembled a brain partly hardened by artificial means. When cut, each section exhibited an oozing of the softer brain-like fluid mass from the exposed surfaces, which oozing was much increased by pressure; so much indeed, that it was obvious that the soft cerebriform matter bore a large proportion to the cellular and other structures in which it was lodged, and upon which the firmness and apparent solidity of the whole depended. The mass was somewhat lobulated posteriorly, and contained a few small cysts filled with a jaundiced serum. The right bronchial tube could be traced for a short distance into the substance of the mass, but was considerably diminished in calibre; the heart was pale, and rather atrophied; its great vessels seemed to run through the substance of the mass which surrounded the bases of the heart, so that only its lower part was visible.

Contrary to expectation, the liver was found perfectly natural in size, but the gall-bladder was enormously distended with bile, and was at least three times its natural size. The apparent tumefaction of the liver was owing to its being depressed by the thoracic tumor. A tumor, consisting of several smaller ones, occupied the situation of some of the mesenteric glands, and equalled two fists in size. It consisted of the same cerebriform substance as that observed in the chest, and appeared to have arisen from degeneration of the mesenteric glands. This tumor pushing the transverse arch of the colon upwards, and the small intestines downwards, pressed upon the ductus communis choledochus, so as to prevent altogether the passage of bile into the duodenum, while its lateral portions extending to the kidneys, pressed upon these organs. The substance of the liver was healthy but green, being injected with bile."

Such were the particulars of this remarkable case—one that proved an opprobrium to the science of diagnosis during life. We omitted to remark that, shortly before death, three tumors had been observed on the patient's body, and had rapidly increased in size. They were immediately under the skin, smooth, round, and the size of walnuts at first, but ultimately attaining the size of oranges. They were seated on the forehead, lower jaw, and loins. These tumors served to mislead our author, as he considered them as merely scrofulous. Dr. Graves blames himself for not connecting and identifying them with the internal disease. He is unnecessarily severe on himself in this respect, for very few would have suspected either identity or connexion. We agree with Dr. Graves, that rare diseases should not be looked upon as mere matters of curiosity, since they may appear rare *only* because they have been overlooked. This is the case with many diseases formerly unnoticed and unnamed, but now familiar, from the industry of modern pathologists.

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### V. HÆMATEMESIS.

Dr. Cumming, of Dundee, has published a fatal case of this disease, with the dissection, in No. 531 of the Lancet, of which the following are the essential particulars.

*Case.* A man, aged 42, of sallow complexion, and subject for some years to stomach-complaints, yet temperate, was seized, on the 20th June, 1833, with vomiting, which continued till nine in the evening of the 22d, when he took an emetic, which was instantly rejected. At ten o'clock same evening,

Dr. C. saw him—pulse 70, soft and regular — respiration natural — tongue white — bowels natural. Ordered saline effervescing medicines. At midnight he had a copious melenic vomiting, of disagreeable odour, and by which he felt relieved. He had some tenderness in the region of the liver on the 24th when examined. A purgative was ordered; but before it was given, he got worse, and passed a quantity of blood by stool, "as black as tar," and of sickening fætor. He fell into a state of syncope, and soon after died.

*Dissection.* The whole of the abdominal viscera presented a dark appearance. The liver was smaller than usual, of a pale yellow hue, and easily lacerable. It contained no tubercles. The gall-bladder was full of green bile. The spleen looked like a bladder half-filled with fluid; and when cut into, its substance was found reduced to the consistence of pus. The colour of the fluid was like that of chocolate. The stomach contained two or three pounds of fluid blood, with some clots. The duodenum and jejunum were nearly filled with blood, which thickly coated the rest of the intestinal tube. A considerable portion of the mucous membrane of the stomach was of a purple red colour, occasioned by extravasation beneath. The mucous membrane was softened about the pylorus, where, and in the duodenum, the colour was of a deep red, that could not be washed out. There was more or less of this tinge throughout the canal. No vessel of any importance was found to be ruptured. The kidneys were of an unsound appearance and texture. There was no other lesion of any consequence.

*Remarks.* Dr. C. attributes the cause of this fatal malady to the diseased condition of the spleen; but the explanation is far from satisfactory. This is no common hæmorrhage, from rupture of vessels, or from any mechanical obstruction to the circulation, but a hæmorrhagic *secretion* from the capillary vessels of a large surface of the intestinal canal. We are quite as ignorant of the cause of this melenic secretion, as of the rice-water secretion from the same surface in cholera. There is one consolation, that the disease is rarely fatal. We have witnessed many cases, not more than two or three deaths. We have found calomel and opium the best remedy in the first instance, followed by castor oil—and ultimately the mineral acids.

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## VI. On the Secretion of Air in the Thorax and Abdomen. By Dr. R. J. Graves.

This curious subject is noticed by Dr. Graves in the January number of our Dublin contemporary. It has attracted but little attention in modern times, though it is far from being unimportant. Dr. Frank has treated of it at some length, and, under the heads emphyseme and pneumatose, it is discussed in the Dict. des Sciences Medicales. Mr. Dalton has demonstrated that the whole substance of the body is pervious to air, and that a considerable portion of air constantly exists in the body during life, subject to increase or diminution according to atmospheric pressure.

Some late writers (vide Cyclopædia of Practical Medicine) seem to doubt the existence of simple pneumo-thorax; but Frank, Laennec, and Andral, have admitted it, and related examples.—There seems, indeed, to be no good reason why air should not be secreted in the cavity of pleura as well as in that of the peritoneum. The following cases are adduced as proofs.

*Case* 1. "I was called by Mr. Dwyer of Camden-street, to visit a young gentleman affected with cough, and mild feverish symptoms. Indubitable evidence was afforded by the stethoscope and percussion of a considerable portion of the lower lobe of the left lung being on the verge of hepatization, for there was dulness, bronchial respiration, and very obscure crepitus, with bronchophony over the affected infero-posterior portion of the lung. In no other part of the left lung whatsoever was there dulness; indeed the reverse was observable over its infero-anterior portion, which gave a preternaturally

clear sound, particularly in the region usually occupied by the heart. It was evident that no effusion of fluid existed in addition to the pneumonia detected at the base of the left lung. On closer examination we were, therefore, greatly surprised at finding that the heart was pushed out of its place, and pulsated quite close to the mamma on the right side.

Had the heart been pushed *thus far out of its place* by fluid effused into the left pleural sac, it is clear that the fluid must have been very considerable in quantity, and *must have necessarily filled the space usually occupied by the heart, as well as that through which the heart was forced* in pushing the mediastinum from the left to the right side. Obvious considerations make it impossible for the heart to be dislocated, as this young gentleman's was, so far to the right side, by means of an effusion of fluid into the left pleural sac, without the occurrence of extensive dulness and the other physical signs of empyema in the infero-anterior portions of the left side of the thorax. No case of dislocation of the heart by means of fluid to such an extent has ever been recorded, without these signs being at the same time observed most extensively in the left side of the chest. In this case, however, the heart was dislocated as already described, and yet not a single physical sign of the presence of a fluid in the left side existed. Some who examined this case advanced the opinion, that the heart was dislocated by means of the stomach being distended with wind. The relative anatomical positions of the heart and stomach render it actually impossible for the latter, even when distended to a maximum, to push the heart in the slightest degree towards the *left* (*right*, obviously) side;—indeed in the numerous distressing cases of ventricular and intestinal tympanitis which I have witnessed, even in those where the belly has been most inflated, I have never seen such an effect; but it is unnecessary to controvert this opinion further, for in a day or two the belly became quite fallen and soft, while the heart's dislocation still continued. There is no other way, then, of accounting for the latter phenomenon, except the supposition that the heart was pushed out of its place by air effused into the left pleural sac, in consequence of a certain degree of pleurisy accompanying the pneumonia of the left lung. The physical signs such an occurrence must necessarily give rise to would perfectly agree with those observed. It is important to add, that the inflamed portion of the left lung now went through the usual process of healthy resolution, but that the heart had regained its natural position many days before the resolution of the pneumonia was completed; an occurrence we can readily explain on the natural supposition that the absorption of the effused air was a process more easily and readily performed by the pleura when its inflammation was cured, than was the restoration of the lung to its original healthy structure after the pneumonia had been checked."

There cannot be a doubt that the heart, in the above case, was dislocated by air. The following case was communicated to our author by Dr. Corrigan.

*Case* 2. "A man, admitted into one of the medical wards of Jervis-street Hospital, died soon after admission. I did not see him alive, and the only particulars of his case I could obtain, were, that he had complained, on admission, of great dyspnœa, and of stitch in his left side, for which he had been bled and blistered. The post-mortem examination was made six hours after death. The body appeared to be that of a man of about forty years of age, well formed and well nourished. The muscles at the time of examination were becoming very rigid, and the superficial veins all over the body, but particularly those of the upper extremities, were remarkably distended. On percussion the anterior part of the thorax of the left side sounded very clear—the right side comparatively dull. The right lung fully occupied its side, and was kept in its place by a few old adhesions; in the cavity of the pleura was a small quantity of reddish coloured serum; no deposition of lymph or other evidence of pleural inflammation. The texture of

the lung was a little more gorged than natural. On opening the left side of the thorax, which, as already noticed, sounded clear on percussion, the lung of that side was found collapsed, lying close to the spine, its texture when cut into, of a dark venous colour, completely carnified, without the slightest crepitation or approach towards hepatization in any part of it. Two or three old loose bands of false membranes passed from the top of this lung to the upper part of the pleura costalis. In the cavity of the pleura were six or eight ounces of reddish serum, and the anterior inferior part of the surface of the collapsed lung was covered with a pasty exudation of lymph to the thickness of the one-sixth of an inch, which could be easily pulled off, leaving the pleura underneath smooth and transparent. This deposition was evidently of very recent formation. In the upper part of the collapsed lung was a cavity of the size of a walnut, with a partially formed lining of lymph. No tubercular matter was found around it or in any other part of the lung. The clear sound on percussion, the collapsed and carnified state of the lung in this case shewed that the cavity of the pleura had been distended by air, which exerted a compressing power on the lung, but whether the air was a secretion from the vessels engaged in the inflammatory action of the pleura, or whether it passed from the cavity in the top of the lung, is a question not so easily answered. The probability seems to be that the air was a secretion. No communication could be detected between the cavity in the lung and the cavity of the pleura, and there was a considerable depth of pulmonary tissue between them. There was moreover no purulent fluid in the cavity of the pleura, nor any recent lymph shed in the neighbourhood, both of which we might expect if the pleura had been ruptured."

The last case is rather defective. Air should have been thrown into the lung by means of a pair of bellows, and then if any opening existed, it would have been detected. A small aperture might escape notice, if the above test be not applied. Our own belief, however, is, that the air was secreted in the above case. From the following reasoning of our author we must dissent.

"The fact too that this air had exerted on the lung itself a compressing force sufficient to carnify that viscus, *is in itself a demonstration* that it had no communication with the air contained in the pulmonary structure and in the bronchial tubes. It is indeed self-evident, that air derived from a pulmonary abscess communicating with the pleural sac, being in equilibrium with the air contained in the lung itself, could not possibly expel the air contained in the air-cells, a step necessary to be effected prior to carnification of the lung. The result of this dissection, therefore, together with the case I observed along with Mr. Dwyer, added to the evidence of Andral, Laennec, Frank, and others upon the subject, leaves no doubt whatsoever of the existence of such a disease as Pneumothorax from gaseous secretion."

If a communication take place between an air-cell or bronchial tube with the cavity of the pleura, no matter how induced, air will be forced out from the lung till the lung itself becomes compressed. Of this, our readers will remember the melancholy example of poor Mr. Cornish, related in this Journal, and where Mr. Guthrie performed the operation of paracentesis thoracis. The aperture was extremely small—the air was constantly escaping—the heart was pushed over into the right side of the chest—and the lung was collapsed to one-third its size. With this exception, we agree in sentiment with the talented writer before us.

Dr. Graves makes some observations on the abdominal species of pneumatosis, which need not detain us long. There are two kinds—one where the air is accumulated within the intestinal canal—the other where it is in the general cavity of the peritoneum. The former is common in hysterical females. In tympanitis the health is often little affected, and the patient only complains of the inconvenient size of the abdomen. "As a contribution to the diagnosis between intestinal and peritoneal

tympanitis, I may observe that, in the *latter*, change of posture always produces a change in the situation of the most sonorous part of the belly, which always occupies the most elevated part."

"Thus, in the case of Mary Callaghan, aged 15, admitted into Sir P. Dun's Hospital, in April, 1833, there was no derangement of the general health, her appetite was good, tongue clean, and she was not at all annoyed by borborygmi or flatus in stomach or intestines: bowels were regular; all this was inconsistent with intestinal tympanitis; her abdomen was globular and measured 31 inches round the umbilicus, which, considering her age and slender make, argued a great increase in size. When she lay on her back, the anterior and antero-lateral portions sounded clear, the postero-lateral portions dull. When she lay on one side, the opposite side of belly then sounded clear. This peritoneal tympanites *had gradually attained to its present magnitude during the preceding year*. It did not affect her respiration: there was no œdema of the extremities, and the abdominal tumefaction was not subject to temporary alterations in size either from eating any particular article of food or any other cause. I have seen several cases similar to this, unaccompanied by menstrual derangement, and where the unseemly appearance of pregnancy was the cause of much annoyance. I must confess that all the remedies I have tried in such cases have generally failed altogether, although the greatest diligence was used in applying stimulating and carminative liniments, bandages round the belly, &c. &c. In such cases I have administered, without good effects, spirit of turpentine by the mouth and in injections, iron, bark, iodine, diuretics, and a continued course of smart purgatives, together with the tepid saltwater shower-bath, but have not found any of these means useful,—for the disease has resisted them all, and continued month after month unabated. It is with a view, therefore, of eliciting further information on this subject that I have made the foregoing observations, for although the disease in question is often quite unattended with any feeling of abdominal tenderness, or indeed any symptom of deranged health, yet the females so affected, and their friends, look for its cure with anxiety, and naturally become impatient when they find the size of the abdomen undiminished, notwithstanding the application of various remedies. When peritoneal tympanites arises very suddenly, in the course of a few hours, or of a few days, the prognosis is much better, and we have a much less obstinate disease to contend with, as it seldom continues long, and often disappears as suddenly as it came. This tractable variety occurs not merely in unmarried hysterical females, but also very frequently in women shortly after delivery. The chronic peritoneal tympanites is of common occurrence in charitable institutions devoted to the education and support of young females, and then it seems connected in most instances with a scrofulous diathesis, produced by confinement and an exclusive vegetable diet."

The peritoneal tympanitis may occur as an acute disease, arising from peritoneal inflammation, and complicated with the intestinal species. It is common to see this disappear with the inflammation, its cause. A succession of blisters and frictions with mercurial ointment are useful.

Our author adverts again to the subject of spontaneous emphysema seated in the subcutaneous cellular tissue, and refers to the excellent observations of Frank on this point. There is a curious variety of this disease following great loss of blood. M. Rebolle relates the case of a patient who died in the Hôtel Dieu of repeated attacks of profuse epistaxis, and whose body on examination, 15 hours after death, and before any symptom of putrefaction obtained, presented, among the coagula of blood in the heart and large vessels, numerous cells filled with air. This phenomenon was still more striking in the small veins, where it resembled the contents of a spirit of wine thermometer, into which bubble after bubble of air had been introduced. When the vessels were divided, gas escaped. Another

case is detailed by the same author, and experiments on animals are instituted, leaving no doubt of the fact, that gas exists in the circulating system after profuse hæmorrhage.

"A gentleman, about fifty-six years of age, residing in the neighbourhood of Dublin, was attacked with excitement of the vascular system and a quick thrilling state of the pulse, which ended in repeated attacks of profuse epistaxis. This hemorrhagic tendency was probably connected with hypertrophy of the heart, and had produced an extreme degree of debility, when Mr. Kirby, who was in attendance with me, discovered that the subcutaneous cellular membrane of the abdomen had become emphysematous. Neither Mr. Kirby, nor Dr. Jacob who was attending along with us, was aware that this emphysematous state arose from the preceding hemorrhage. Every thing connected with the development of gas in the vascular system is calculated to excite interest, and without entering upon the important inquiry how it happens that hemorrhage predisposes to such an occurrence, I may observe, that when air is once generated in morbid quantity it may occasion the most fatal symptoms, as is proved by the sudden deaths which have occurred during operations, in consequence of the absorption of air into the veins."

These cases are very interesting, as indeed are all communications from their highly gifted author.

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## VII. On the Anterior Membrane of the Eye-Ball. By Dr. Wallace, one of the Physicians to the New York Northern Dispensary.

It is stated that the conjunctiva lines the eyelids, and is reflected over the eyeball, and that it is a membrane *sui generis*, between the mucous and the cutaneous structure, as it is subject to the diseases of both.

When the eye of an ox is immersed in hot water or vinegar, the anterior membrane coagulates, and may be separated from the cornea, and that portion of the conjunctiva which it covers The conjunctiva does not coagulate, it cannot be traced to the cornea, but seems inserted into the sclerotica.—When the eye is macerated and the conjunctiva dissected from the eyeball, the conjunctiva may be cut through at its attachment, and as the anterior membrane overlaps it, there may be the appearance of continuity of structure. But if the separation be commenced at the centre of the cornea, and be carried to the conjunctiva, the corneal covering will be found to overlap it for a short space, and to be a distinct membrane, as it can be completely separated from it. It may be compared to a small watch-glass, very thin at the edges, a little larger than the cornea, and placed over it and the contiguous conjunctiva. This is not a mucous membrane. It resembles the cuticle, in being composed of albumen, and in being easily regenerated when abraded.

We can thus explain the appearance of pustules over and at the edges of the cornea, (I have never seen them on the mucous membrane,) and why in catarrhal ophthalmia the chemosis does not cover the cornea.

*New York, 22d Nov.* 1833.

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## VIII. On the Prevention of Uterine Hæmorrhage, post partum. By Dr. Beatty.

In our esteemed contemporary of Dublin, for January of the present year, there are some "contributions to midwifery,"—(a somewhat equivocal term by the bye, from the fertile soil of the Emerald Isle)—by Dr. Beatty, consulting accoucheur to the Baggot Street Hospital, Dublin. The one which we shall now notice is on a very important subject. Uterine hæmorrhage, post partum, is a formidable accident. The gush of blood, on such occasions, strikes terror into the minds of all. The loss of the vital fluid, in the greatest operations, is comparatively trifling to this. It would seem that the parturient woman bears better an excessive hæmorrhage than any other individual—probably in consequence of the habit so

long sustained in the system, of devoting a large portion of blood to the purpose of utero-gestation. Still there is a limit to this tolerance of hæmorrhage, beyond which the female cannot go in safety, though some bear a much greater loss than others. This hæmorrhage can result, according to our author, from one cause only—namely, a patulous state of some or all of the great uterine sinuses, in consequence of want of contraction. "The only remedy for this is a proper contraction of the fibres through which these vessels pass obliquely." Uterine contraction, therefore, is the only protection against uterine hæmorrhage; and will always be effectual except in cases of morbid adhesion of the placenta. The best means of effecting this contraction, according to Dr. Beatty, is direct stimulus by external force, viz. grasping, friction, and firm pressure over the pubis. Dr. B. says that this was the practice pursued by his father, with great success, during a long practice of 45 years. He does not wish, however, to discard other assistance, as cold, &c. He only desires to place the above means in the first rank.

"Early impressions are very lasting, and therefore I have a vivid recollection of the first case of serious uterine hemorrhage I ever witnessed. I was called in the middle of the night to a patient, who had been attended by a very young man, a student of midwifery. The labour had been natural and easy; but after the birth of the child, and before the expulsion of the placenta, a deluge of blood escaped; and when I arrived, there was not only a sea of it under the patient, but also a stream along the floor, that had issued from the foot of the bed. I found the attendant pale as a corpse, and almost frightened to death, with a bucketful of water beside him, and numerous cloths soaked in the same, which he diligently applied to the external parts. Notwithstanding which the bleeding still continued. The woman was blanched, the pulse failing at the wrist, she was tossing her arms about, and crying out for more air. On passing my hand over the abdomen, and feeling the uterus large and flaccid, I immediately exerted all my force, in grasping, and firmly pressing this organ downwards into the pelvis, and very soon found it contracting forcibly under my finger. At this moment a rush of coagulated blood took place, which nearly extinguished the little remaining spark of life in the attendant, but was a matter of great consolation to myself, as I took it as a token of having succeeded in my endeavours. In this I was not deceived; the uterus had fairly contracted, and the hemorrhage was at once arrested. I kept up the pressure on the uterus with my left hand, and passed the forefinger of my right into the vagina, to ascertain the state of the placenta, which I found now lying loose in that passage, from whence, after having put on a tight binder, it was easily removed. The woman recovered; but she had lost so much blood, that some days elapsed before she could be pronounced out of danger."

Dr. B. conceives that, in the foregoing case, the introduction of the hand into the uterus, would have been productive of greater loss of blood than the procedure which he employed. If, however, he had found the natural contraction of the uterus insufficient to expel the placenta, he would then have had recourse to extraction.

As we cannot prognosticate whether or not hæmorrhage will take place, post partum, it is better to guard against its occurrence. "This is attained by making the uterus perform the whole process of expelling the child itself, even to the feet; and never, by any injudicious haste, assisting the delivery by pulling the child."

"A practice pretty generally employed in this city, and lately taken notice of by Dr. Maunsell, is of great utility in this part of the process; that is, after the expulsion of the shoulders, to place the left hand on the abdomen of the woman, and follow the uterus by firm pressure until the whole child is expelled. After this has taken place, if the child be alive and cry, the right hand, which had been employed in supporting its head and body, may now be disengaged, and the child laid in the

bed, until more important matters are attended to. The chief of these is the proper application of an appropriate binder, previously passed loosely round the body of the woman. This I consider a very important part of the treatment, for it at once insures an equal and firm pressure on the uterus, and prevents its subsequent relaxation; while it leaves the practitioner at liberty to attend to the child. But the kind of binder usually employed, is very ill calculated to accomplish this end. It is commonly made of some straight narrow material, as a folded towel, a piece of linen, or what is still worse, of flannel, any of which it is utterly impossible to apply in such a manner, as that it shall keep its place, and exert the uniform pressure which is so desirable; as from the shape of the woman's body, it must slip up over her hips, and it finally runs into a simple cord round her waist, no matter how broad it may have been, or how accurately it may have been at first fastened.

To obviate this difficulty, I make all my patients provide themselves with a binder, according to a pattern which I have constructed, and have found of the greatest use and convenience. It is made of jean, or twilled calico, doubled, and broad enough to reach from the eighth or ninth rib to the trochanters; with two long triangular pieces, termed in millinery, gores, let in to enlarge the diameter below, and fit the hips, just as female stays are made. It is furnished with a row of buckles arranged along one end, and at the other, with a corresponding number of straps, made of the same material as the binder. The straps are about seven inches long, and are sewed, not to the edge, but about seven inches from it; so that when they are passed through the buckles, the floating portion passes under the opposite end, and protects the skin from pressure. A very thin piece of whalebone, one-third of an inch broad, is inserted, so that when the binder is applied, it runs straight down the middle of the abdomen from the thorax to the pelvis. A bandage such as this fits easily, without any unequal pressure when drawn tight; never shifts its place when made well, and properly applied; and effectually accomplishes the object for which it is intended. I have employed it with several ladies who had been in the habit of using the common kind, and they invariably express the greatest comfort from its use."

As soon as the child is expelled, and when the uterus is felt to be well contracted, the binder may be tightened. It is best to begin with the middle straps, and proceed regularly downwards, after which the upper may be secured. The course thus pursued is admirably calculated to prevent the occurrence of the hour-glass contraction —and the best security against that insidious, and too frequently fatal accident, relaxation of the uterus after delivery, accompanied by internal hæmorrhage.

These observations from Dr. Beatty will be perused with great advantage by our readers.

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## IX. On Mammary Abscess. By Dr. Beatty, of Dublin.*

The new office which the mammary glands have to perform after parturition, is attended with considerable increase of the circulation. Within certain limits there is no danger, and not much inconvenience; but when the vascular action passes a healthy limit, inflammation and suppuration are the consequence. A breast which has once suppurated is always more liable afterwards to the same accident. The ordinary treatment usually fails to check this inflammation.

"I have been in the habit of combating this affection in a way first communicated to me by my friend the late Mr. Gregory, who employed it with great success in the Coombe Lying-in Hospital. I have found it equally useful in hospital and private practice, and as I am not aware of its being mentioned by any writer, I take this opportunity of doing so. The remedy to

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* Dublin Medical Journal, Jan, 1834.

which I allude is tartar emetic, whose power of controlling inflammatory affections of the breast would almost lead one to imagine that it exerted a specific action on the mammary gland. On the accession of inflammatory symptoms in the breast, after purging the patient, I administered this medicine in doses of one sixteenth of a grain, repeated every hour, so as to induce slight nausea. It is never my object to cause free vomiting, and if this should occur, I omit the medicine for an hour or two, and then recommence its use at longer intervals. In ordinary cases, I usually find after twenty-four hours, that the pain and fever are mitigated, and the breasts are smaller and softer. If these effects are not produced in that time, I double the dose, provided the stomach will bear it, and it rarely happens that it will not, for I have observed that in those cases which do not yield easily, the stomach is very patient of the medicine; probably this circumstance is the cause of the obstinacy, as it appears necessary to cause some nausea before the disease begins to yield."

Dr. B. has frequently employed this remedy in the hard knotty condition of the breasts, which so frequently attends the first week of lactation, and has found it contribute much to the relief of the patient, by softening and discussing the tumours.

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## X. On Vermination. By Dr. Alexander, of Manchester.

There are several communications on this subject, in the Lancet, from the pen of Dr. Alexander, but that which is marked No. III, and published on the 7th of December, appears best calculated for notice in our Periscope, as being more immediately practical than its predecessors.

Dr. A. observes that his attention was first particularly drawn to the subject of vermination, in the Autumn of 1830, from the following circumstance.

"I had been attending for some days a child, five years of age, labouring under convulsions of a very severe character, which had not appeared to give way in the least to the use of leeches, vesicatories, cold applications, aperients, and subsequently, antispasmodics and the warm-bath; when, one evening after a lengthened attack, threatening dissolution, a worm of the lumbricus teres species, was expelled, the exhausted child sank into a prolonged slumber, and had afterwards no return of the convulsions. The case attracted my especial notice on two accounts. The child was a firm-fleshed little fellow, with a countenance anything but verminative, and the most careful examination of the subsequent evacuations did not lead to the detection of any more worms, although appropriate medicines were persevered in for some time."

Dr. A. goes on to remark that young children are subject to three kinds of worms, the ascarides, the cucurbitina, and lumbricus. Tænia is extremely rare in young children. The cause of vermination is involved in mystery; but generally and practically speaking, the cause of worms is bad health—or, at all events, disordered bowels. The following dietetic and medicinal extract we shall place on record in our pages.

"First, then, as to diet. Fresh vegetables, pastry, sweets, and salted food, should be interdicted. Stale wheaten bread with milk, should form the evening and morning meal, and the meridian repast should consist of fresh animal food, such as mutton-chop, boiled fowl, or beef-steak, in small quantity, with the bread before mentioned. To this may be added the various animal broths and a little of the best rice in the form of pudding. It may be, and frequently is, objected, that the hitherto indulged child will not take to this diet. My answer is, let the child fast until it will, and the period of abstinence is seldom a very protracted one. In dispensary practice, the cure of verminative disorders is constantly delayed by the parent being unable to afford the appropriate food for the child; and owing to this common occurrence we are rendered painfully sensible of the great importance attachable to a regulated diet in these cases.

Next as to medicine. It has been

my custom to administer scammony, jalap, and calomel, in *small doses*, suited to the age, every alternate night, at bed-time, succeeded the mornings following by a small dose of castor oil. There are two reasons upon which I think the preference for small doses of aperients might be justified. The first is, that they have a better opportunity of exerting their alterative effect by being leisurely passed through the intestines; and the second is, that in the great majority of verminative cases which I have witnessed, the little sufferer is more or less troubled with partial prolapsus of the lower gut, and it is scarcely necessary to add, that powerful purgatives render this local debility a great source of distress; at the same time I fully concur with my esteemed friend and colleague, Mr. Stott, in thinking that the *first* purgative should be in full dose, as a free evacuation of the large intestines gives marked relief to the accumulative distention and anal bearing-down accompanying these cases. Gamboge, from being tasteless, would be a purgative peculiarly adapted for children, but it is a drug which sometimes not merely produces great nausea, but fails altogether in acting as a purgative; hence I cannot recommend its general adoption. After the first passages have been relieved for a week, the spirit of turpentine mixed with castor oil may next be given with the most salutary and marked effect, frequently removing hundreds of these enemies of childhood at every dejection. The dose I have generally administered to a child of five years of age, has been two drachms, of each taken combined, on an empty stomach: and as a little tormina sometimes accompanies this remedy (first recommended by Dr. Fenwick,) the mother or nurse is directed to give occasionally a little warm oatmeal gruel well nutmegged; and if the medicine induce temporary intoxication (not an unusual effect,) to lay the child on its bed till it pass over. Another mode of exhibiting turpentine is, in milk sweetened; and this form will sometimes agree with the child's stomach better than the one just mentioned."

Dr. Alexander does not allude to the most powerful of all anthelmintics, the helminthocorton, a strong decoction of which, when thrown into the rectum, destroys any worms domiciliating there as effectually as choke-damp would destroy the life of a miner. This is worthy of being generally known—and the material can be procured at Butler's in Covent Garden, with the greatest facility.

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XI. ON SECALE CORNUTUM IN HÆMORRHAGES, LEUCORRHŒA, AND GONORRHŒA. By Dr. NEGRI.

A long paper on this subject was read before the London Medical Society by Dr. Negri, a very intelligent and clever Italian physician, long domiciliated among us, and highly respected by all who have the pleasure of his acquaintance. As the paper was much discussed in the Society, and afterwards republished in one of our contemporaries, we shall only give a very brief account of it in this Journal. Dr. N. takes a rapid coup d'œil of the principal writers who have published on the secale cornutum within the last four or five years, and then proceeds to the results of his own experience—chiefly in public practice, the Doctor being one of the physicians to the St. John's Dispensary, in this metropolis.

The first case stated was that of a female, aged 35, who had been ill for a long time with menorrhagia, unsuccessfully treated. She was ordered five grains of the ergot thrice a day. The hæmorrhage gradually decreased, and in less than a month ceased altogether.

*Case* 2. Ann Marshall was admitted on the 14th May, 1833, labouring under profuse menorrhagia, with quick sharp pulse, and pains in the loins and hypogastrium. She was bled and had salines, but the hæmorrhage continuing after three days of this treatment, the ergot was given in the above manner when the discharge soon ceased.

*Case* 3. This was a hæmorrhage

from the rectum, attended with irregular menstruation. The discharge had continued for nearly a month. The secale was given in five-grain doses ter die, and the discharge ceased after the fourth day.

*Case* 4. A female, aged 40, had had profuse menstruation for 18 months, attended occasionally with actual hæmorrhage. At present it is of the active kind, with pain in the loins and excited circulation. Five grains of the ergot were given every three or four hours. After the third dose, she had a violent head-ache and giddiness, with a sense of bearing down about the womb. In a few days the hæmorrhage ceased.

*Case* 5. A female, aged 47, had had leucorrhœa for many years—miscarriages nine—menorrhagia thrice during the present month. She took the secale every four hours, and in two or three days the sanguineous discharge ceased.

*Case* 6. A young female was seized with hematemesis, after a mechanical injury to the body. Whenever pressure was made over the right hypochondrium, blood was thrown up from the stomach. This state had continued for many weeks before she was admitted into the dispensary. Five grains of the secale were given thrice a day for some days, without any effect. It was then discontinued, and sulphate of iron, with kino, was administered with benefit. She was discharged cured under this treatment, and, therefore, the ergot was in this first instance a failure. In ten days afterwards, however, she experienced a relapse, in consequence of an accident, and returned to the dispensary. Different remedies were employed without any good effect; and again they had recourse to the ergot, six grains of which were given every three or four hours. "After having taken six powders, the sickness, the vomiting of blood, and the pain in the right hypochondrium left her." She continued them for several days, without any unpleasant symptom ensuing. The patient recovered.

*Case* 7. This case occurred in the Middlesex Hospital. A girl, aged 21, was admitted under Dr. Macmichael on the 21st September, 1830, complaining of great tenderness in the right hypochondrium, with sickness, and vomiting of a dark fluid, mixed with blood, partly coagulated. Local bleeding and different remedies were employed, without success. Dr. M. at the suggestion of Dr. Negri, prescribed six grains of the secale cornutum ter die. In two days the patient was better, and the remedy was continued. In another day, the hæmorrhage having ceased, and the pain being greatly diminished, she was discharged cured.

*Case* 8. This was one of hæmatemesis, with enlarged spleen, in which the medicine appears to have had its usual success.

*Case* 9. A female, aged 30, had hæmorrhage from the rectum, preceded by chronic diarrhœa. The discharge was of a fortnight's standing. The ergot of rye, in six-grain doses thrice a day, was prescribed, and the sanguineous discharge soon disappeared.

*Case* 10.—*Epistaxis*. A female, aged 62, was admitted on the 19th August, 1833, having been seized with epistaxis three days previously, and having had the *anterior* nares plugged by a surgeon, without effect. When Dr. N. saw her on the 19th, she had just had a severe hæmorrhage, and was pale and weak. Six grains of the secale were given immediately, and to be repeated every quarter of an hour. She remained free from hæmorrhage after the second dose of the medecine.

*Case* 11. This was one of hæmoptoe. The patient was a cabinet-maker, aged 20 years. After having had a cough for some months, he began to expectorate blood. He was admitted on the 3d of October, 1833, and there being no inflammatory symptoms, he was order-

ed the secale, in six-grain doses, thrice a day. After two days the hæmorrhage diminished, and soon afterwards ceased.

*Cases* 12 *and* 13. These are furnished by Mr. Nettleford, the apothecary of the dispensary—both of hæmoptysis, and where the secale appeared to exert its usual beneficial effects.

*Cases* 14 *and* 15. These were furnished by Dr. Ryan, one of the physicians to the dispensary. The first was a carpenter, aged 32 years, who had a tooth extracted, after which a profuse hæmorrhage ensued. This continued in spite of means prescribed by some medical men, to whom he had applied. Dr. R. ordered him the secale in the manner already mentioned. The success was complete. The second of Dr. Ryan's cases was one of menorrhagia, followed by metritis. A female, aged 23, was admitted into the dispensary on the 18th September, 1833, having suffered from menorrhagia, with excessive pain and discharge of coagula. She was ordered six grains of the secale thrice a day. In three days the uterine discharge ceased; but well-marked metritis ensued, and required the usual antiphlogistic means.

In the second part, read before the London Medical Society on a subsequent evening, the efficacy of secale cornutum in leucorrhœa is detailed in several cases. Into these we shall not enter, contenting ourselves with the following extract, containing the observations of Dr. Negri himself.

"On the employment of the secale cornutum, and on its efficacy in leucorrhœa, we shall limit ourselves to some general remarks, which are the result of our experience on this subject, without entering into any detail of the singular cases which occurred under our observation.

Although the secale cornutum will be found one of the most valuable remedies in the simple form of leucorrhœa, even of a very long standing, and which have resisted many other means, still its efficacy on this kind of diseases is not so rapid as in hæmorrhages. This would have been almost expected as a matter of course, from the more chronic character of the former complaint. Therefore we found it more convenient, and we may say even more safe, to give it in small doses, as five or six grains two or three times a-day, rather than in larger and more frequently repeated ones. Thus the remedy may be continued for a long period without any inconvenience, and with a regular advantage. In leucorrhœa as well as in menorrhagia, we must remember, that the ergot of rye has also a peculiar power over the fibrous texture of the womb, and that pains and spasmodic contractions of this organ may be induced, and then symptoms of metritis, and even an increased discharge, may eventually take place. Then it is of the utmost importance, in leucorrhœa also, to allay any state of inflammation, or of local irritation, by those therapeutical means which may be required by the particular symptoms of each case, before we have recourse to the secale cornutum.

We find in practising, that some patients could not take at first any dose of this remedy without severe pains being induced in the uterine system, when, after having used other remedies for a certain time, they could take the secale again without the least inconvenience, but, on the contrary, with a decided and progressive advantage on their general state of health.

In one of these patients the os uteri was partially open and indurated, and very tender on the left side of its margin: when the finger pressed over this point acute pains were excited, darting from that part to the right iliac region. We used in this case the extract of conium with the sulphate of iron, with great benefit, and, after this morbid sensibility was subdued, we gave again the secale cornutum for the remaining leucorrhœa with decided benefit, and without any more inconvenience, although continued for a long time. We have lately seen this patient, and her general state of health has wonderfully improved; she feels a great deal stronger, and the white discharge is almost entirely gone; we confidently expect to see her in a short time cured by

the ergot of rye, which now she only takes twice a day.

Out of ten cases of leucorrhœa, of which we kept regular notes, the ergot of rye has failed in three. But, in all probability, that happened more from want of experience in the judicious employment of the remedy rather than from its inefficacy.

Of these three unsuccessful cases, two were cured afterwards by other remedies; but one had never been permanently well, either by the ergot of rye or by any other means employed for a long time, both by ourselves and several other practitioners. In this singular case, the secale cornutum appeared to have induced once menorrhagia, after which the patient was better from the white discharge for a little while. Amongst the other things we tried repeatedly the injection of nitrate of silver, as recommended by Dr. Jewel, but without any good effect, and as it appeared to this gentleman very extraordinary, we recommended her to the doctor himself, but we do not know the result.

The secale cornutum has been successfully employed in leucorrhœa by our colleagues at the St. John's Dispensary, and our friend Dr. Ryan has even used it in private practice with the greatest advantage."

### GONORRHŒA.

Seven cases of gonorrhœa are reported by Dr. Negri. Some of them were acute, others chronic. Some were males, others females. As far as can be judged by these cases, the secale was very beneficial. Dr. Ryan has appended short notes of several other cases, most of which were successful.

"From the above facts (says Dr. N.) it appears to us quite evident, that the secale cornutum has a peculiar action on the mucous membranes; but if exhihibited when there is a state of acute inflammation, their morbid secretion may be considerably increased. On the contrary, when a more chronic form of inflammation exists, the secale cornutum may have a beneficial influence in arresting their preternatural discharge."

We have put these statements on record, in order that our brethren may have an opportunity of testing them by experience. We fear that the ergot will not do much in gonorrhœa.

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## XII. ON THE TREATMENT OF PORRIGO DECALVANS BY SOLUTION OF TARTAR. By Dr. H. BEAUCHAMP.

[Dublin Journal, No. XII.]

FEW affections more frequently baffle the skill of the medical practitioner, or give employment to the nostrum monger, than porrigo decalvans. Our author has some doubt as to the propriety of placing the affection in question in the genus porrigo, but does not stop to offer a new arrangement. He was led to try the effect of tartrite of antimony in this disease, from a conversation with his friend Dr. Carter, an army-surgeon of considerable experience, who had often succeeded with this remedy in restoring the growth of hair that had fallen off in consequence of acute diseases, the use of mercury, &c. The strength of the solution was five grains to an ounce of distilled water. Shortly after this conversation a young lady applied to Dr. B., complaining that her hair fell off from a particular spot of her head. On examination, this part was found to be slightly red, unlike what generally happens, and therefore he thought it proper to apply leeches in the first instance. After the second application the hair began to grow, and there was no necessity for the antimony. After several months the lady returned, with another bald part; but this time the skin was pale. Nevertheless he applied leeches, without any good effect. Afterwards he had recourse to the antimonial solution, which was applied three times a day. The hair grew again, and of the same colour as the rest of the hair.

The next case was that of a young lady from whose head the hair first fell off in spots, but in the course of five or six years, half the head had become bald, in spots, from the size of a six-

pence to that of a half-crown. The antimonial solution was then employed, having the remaining hair shaved off. By mistake the solution was made too strong, and brought out a crop of pustules. When these had healed a soft down of hair was perceptible on the affected parts, but of a lighter colour than the remaining hair. The head was again shaved, and the solution of proper strength was ordered. But the anxious mother again applied a strong solution, which brought out a crop of pustules, not only on the head, but over nearly the whole body, accompanied by febrile action requiring antiphlogistics. The fever subsided, and the pustules disappeared, except from the head, where the pustules coalesced and formed an immense scab, not unlike those of tinea capitis. The lady bathed in the sea during the Summer months, had the head repeatedly shaved, and subsequently recovered completely, having the head covered with a uniform growth of hair.

Even these few instances deserve the notice of the profession, and further trial of the remedy.

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XIII. MEDICAL PROBLEMS. By Doctor GRIFFIN.

Under this head Dr. G. has stated some cases of jaundice, and made some remarks on the occurrence of coma and sudden death in that disease, in the last number of the Dublin Journal. The first case was that of a young woman, who was reported to be dying, though only three days ill. She actually expired as the Doctor entered the room. Her skin was universally tinged with bile—the countenance hydropic, and the pupils dilated. The illness had commenced with langour, and, on the second evening, with vomiting—jaundice—headach. She suddenly became affected with stupor, ending in profound coma and death. In three weeks afterwards Dr. G. was called to Ellen Barry, a sister of the deceased, and found her affected in precisely the same way. She was now rather comatose, and universally jaundiced. She was conscious when roused, but unable to speak and unwilling to be disturbed. From this dangerous state she was saved by active and continued purging. The yellow tinge gradually disappeared. Within a short period afterwards, another of the family was attacked—a boy, 13 years of age—and in nearly the same way as the other two. He was moaning and comatose—his skin yellow—pulse slow—breathing not stertorous. This case was still more sudden than either of the others. The boy was seized with sickness in the night, and was jaundiced in the morning, as well as insensible. He lay in this state till near the end of the second day, without medical assistance, and without any evacuation from his bowels. He died in a few hours afterwards. The parents now became highly apprehensive for their other children, and not without reason. In the course of a few months another boy 11 years of age, shewed symptoms of jaundice. Although actively purged, coma came on in a day or two, with complete loss of sense and motion. Ten ounces of blood were drawn from the temporal artery—the head was shaved, and kept wetted with cold lotions. Large blisters were applied to the nape of the neck, and he was copiously purged. He slowly recovered. He had a relapse of vomiting and jaundice, but the coma was arrested by full purgation.

We shall not enter on the elaborate train of reasoning which our author uses to illustrate the connexion of jaundice with cerebral affections. We have no doubt whatever that the foregoing cases were not those of common jaundice at all, but produced by something in the food of the individuals, or in the locality of their residence. Poisonous matters in food will produce jaundice and coma. Noxious emanations from the earth will do the same. The inhabitants of the Pontine fens are all jaundiced—and indeed the inhabitants of all miasmal localities have more or less of an icteritious tinge in the eye or on the skin. The cases abovementioned are so different from those cases of jaundice from biliary obstruction, that we cannot but consider them as resulting

from quite a different cause. The case quoted by our author, as related in the Westminster Medical Society, a few years ago, by Mr. G. Burnett, was not one in point. It was a case of *green* jaundice, and by no means rapid in its course. It is a highly dangerous disease at all times, as Dr. Baillie long ago remarked, and its pathology is not at all understood. We trust that these observations will induce Dr. Griffin to make a strict inquiry into the diet and locality of the unfortunate family abovementioned, and we apprehend he will find something unusual. The ingenious author, indeed, mentions that he himself, together with his servant and many others in the neighbourhood, was suddenly affected with jaundice some years ago. This he attributed to some peculiar state of the atmosphere; but it was far more likely to be from some emanations from the locality. Even when the atmosphere becomes morbific, the cause must proceed from the earth. It was unfortunate that no post mortem examination was permitted in these cases. Dr. Griffin's paper is both curious and interesting, and we hope he will continue to work his medical problems, with advantage to the profession.

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## XIV. EFFECTS OF IODINE IN CHECKING SALIVATION.

In our last number, page 205, we quoted some observations from Hufeland on the above subject. In the January number of our Dublin contemporary, Dr. Graves has given some observations made by Dr. Kluge, of Berlin, on the anti-ptyalismal properties of iodine. These, however, we shall pass over, in order to give a case by Dr. Graves himself, from the journal in question.

"Since the preceding was written, I had an excellent opportunity of trying the effects of iodine in arresting the progress of mercurial salivation, and I am happy to say that the result was favourable.—A man named Michael Kelly was admitted into the Meath Hospital, on the 14th of November last, labouring under pneumonia, affecting a large portion of the right lung, and combined with dry pleurisy. The disease had commenced ten days before, and notwithstanding two venesections, and the exhibition of tartar-emetic, hepatization of the lower portion of the inflamed lung had taken place. The man's situation was critical in the extreme, but his life was saved by cupping, blistering, and above all, by the rapid ingestion of calomel, at first given in scruple doses, and afterwards in smaller quantities. In the course of two days he took seventy-four grains of calomel, latterly combined with large doses of opium. On the third day his mouth became affected, and salivation set in, accompanied by a rapid subsidence of all the dangerous symptoms. Mercurial salivation thus suddenly brought on by large doses of calomel, is invariably profuse and violent, and seldom begins to subside until several weeks have expired. In the case before us it was increasing daily, when, on the 20th of November, I commenced the exhibition of iodine. On the 20th he took three grains, on the 21st and 22d, together, eight, and on the 23rd and 24th sixteen grains, making, on the whole, twenty-seven grains taken in five days, when it was omitted on account of nausea being caused by the last dose. On the 26th, its use was resumed, and on that and the following day he got eight grains more, making a sum total of thirty-five grains. On the 1st of December the salivation had ceased altogether; the mercurial fetor, with the soreness of mouth, were nearly gone, and neither the gums or teeth had suffered in the way they usually do from a violent mercurial salivation.—*The most important result obtained, however, was, that the iodine did not produce any detrimental effects on the pleuritic or pulmonary diseases; on the contrary, its exhibition, after the mercury had affected the constitution, seemed to resolve the still remaining inflammation most rapidly.*—The same observation applies to a case of violent pericarditis occurring in a gentleman whose life was saved by mercury exhibited by Dr. Brereton and myself. Forty grains of iodine produced no reappearance of inflammation, or any bad effects whatsoever!"

## XV. CHOLERA-PHOBIA AND CHOLERA ECCLESIASTES.

The following amusing quotation from a work recently published, may not prove unentertaining even to medical readers, though its chief point is ecclesiastical.

"Tourists are the most fortunate people in the world. They seldom fail to find some remarkable incident or occurrence, just happening when they visit a place, as if for the very purpose of being put on record by their fertile pens. It was my good or evil star to be in Inverness when an event occurred there, unprecedented in the annals of that capital, or even of the Highlands themselves. On the very day that I took up my quarters in the Caledonian Hotel, another, and I have the vanity to think, a much less welcome visiter, arrived in the town—the INDIAN CHOLERA! Having been formerly on terms of intimacy rather than of friendship with this unhallowed stranger in his native country, I was apprehensive, at first, that I might be suspected of introducing him clandestinely, and in defiance of the quarantine laws; but my fears were soon dispelled, by learning that the blame was universally cast on the guard of a mail-coach, who had died of cholera, or rather of cold winds and hot whiskey, some place between Aberdeen and Inverness. I was therefore at liberty to go about, and observe the effects of the panic on the inhabitants at large, without suspicion of being an infected personage myself. Had not the poor guard been dead, and consequently irresponsible, I think my conscience would have compelled me to take the blame on myself, as I was far more likely to have carried the dire contagion to the capital of the Highlands, than the man who blew the horn on the top of the stage-coach, over the blasted heath of the Weird Sisters."

"I attended at three churches, during that day, but shall only notice the doctrines propounded in one of them, where, by all accounts, the most learned, pious, and popular pastor of Inverness presided. The text (if I recollect right) was from Amos:—'Seek ye the true God, and ye shall not die.' A more appropriate and exhilarating portion of Scripture could hardly have been selected, because it pointed out to the sinner the means of escaping the cholera, and confirmed the righteous in his security against the evil."

"According to the preacher, the Indian cholera was wholly a dispensation of the Almighty, on a sinful people. He maintained this proposition by an appeal to facts. It had been ten times more destructive in other countries than in Great Britain—because the people of those countries were a wicked and ungodly people! Unhappily for his arguments, it had been much more fatal in Scotland than in England; though the Scotch are universally allowed to know the 'true God' better than their Southron neighbours. Not the slightest allusion was made to the possibility of the epidemic arising from natural causes. No. It was a direct visitation of God, on nations and on individuals, for their sins! This is a serious doctrine! Let us examine it a little more closely. Did the pestilence fall exclusively on the wicked? It fell chiefly on the wicked—provided always that they were very *poor*. The rich man might murder, rob, and ruin all around him—he was perfectly safe from cholera. The poor man might be the most virtuous, religious, industrious of his race—but poverty was the sin that rendered him the sure victim of the epidemic! Such is the species of justice with which MAN has dared to invest his CREATOR! If cholera was sent by a supernatural power on earth, as a scourge, and independent of natural causes—that power would seem to have been EVIL, rather than GOOD; for imagination can hardly conceive a visitation more partial and unjust, than the pestilence in question.*

* "There is nothing new under the sun. When the plague broke out in the Grecian camp, before Troy, the priests, at once, declared that it was sent by one of their (false) gods. When the cholera invaded Scotland, it was declared by holy men to be a destroying angel from the 'true God.' On the

"In the very first year of the pestilence (1832) consumption carried to the grave double the number of those who fell victims to the epidemic, in this country. But cholera came from God, while consumption comes from climate! This doctrine is scarcely less impious than preposterous. More than one half of the towns, villages, and hamlets of England, entirely or almost entirely escaped the divine visitation—*ergo*, there were no sins to be punished in these favored spots. Of the two universities, Oxford [the poor of] was scourged, while Cambridge remained free—*ergo*, the poor inhabitants of Oxford were wicked, while the fat professors and the virtuous youths of both seminaries were the chosen people! Glasgow, where stands the colossal statue of John Knox, was desolated by cholera; but Rome, where *the lady* in scarlet is considered to hold her court, has hitherto remained free from the pestilence! Some thousands of infants at the breast perished—FOR THEIR SINS!—Almost the whole of the profligate, irreligious, debauched, cruel, uncharitable, *but wealthy* population were shielded, by the arm of the Almighty, from the destroying angel that swept off the poor, and left their widows and orphans to mourn in misery and want! Such is the dispensation of Providence, as propounded ex cathreda, and very generally believed, especially in North Britain! That *vice*, provided it was conjoined with *want*, was a frequent victim to the pestilence, cannot be denied. But the observation applies to all diseases as well as to cholera. Let the same vice be well fed and clothed, and Providence will send no cholera to such quarters."

"To return to Inverness. The eloquence, the fervour, and, I have no doubt, the conscientious zeal of the preacher, had all the effects which he could desire, on the general mass of the audience. That sermon, I do think, sent some to their graves by cholera, who would otherwise have escaped! The ghastly features, the quivering lip, the up-turned eye, the heaving bosom—all showed how effectually the denunciations from the pulpit were predisposing to, and aiding the epidemic influence, which was spreading over the land. Inverness suffered severely—and so did Scotland generally. No wonder. Terror was the prime auxiliary of the natural causes which occasioned cholera; and the injudicious orations from some of the pulpits gave an additional power of destructiveness to the epidemic,"*

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banks of the Scamander, sacrifices and ceremonies were employed to stay the plague:—on the shores of the Forth, gunpowder was detonated, old rags were burnt, and chlorides were sprinkled—to stop the cholera! In one particular, however, the ancient and the modern soothsayers widely differed. The Grecians had a FEAST, after the ceremony of exorcism:—the Caledonians, a FAST. The plague ceased immediately on the plains of Troy;—the cholera was invariably aggravated by fasts, fumigations, and segregations, in the valleys of the north!"

* The Recess; or, Autumnal Relaxation in the Highlands and Lowlands, &c.

## XVI.

## THE PRECEPTOR.

### Dr. Stokes on Delirium Tremens and Dyspepsia.

The following extracts from one of Dr. Stokes' Lectures deserve a place in our Preceptor.

#### 1. Delirium Tremens.

"A few words now with respect to the other complication,—delirium tremens. You have all seen cases of delirium tremens, but you are not, perhaps, aware that it arises under two opposite classes of causes. In some cases, a patient who is in the habit of taking wine or spirituous liquors every day in considerable quantities, meets with an accident or gets an attack of fever. He is confined to bed, put on

an antiphlogistic diet, and in place of wine or whiskey punch, gets whey and barley-water. An attack of delirium tremens comes on, and symptoms of high cerebral excitement appear. Another person, not in the habit of frequent intoxication, takes to what is called a fit of drinking, and is attacked with delirium tremens. In the first case the delirium arises from a want of the customary stimulus, in the second from excess. In each the cause of the disease is different; and consequently, with this view of the subject, it would be a manifest departure from sound practice to treat both cases in the same way. Yet, I believe, this error is frequently committed, even by persons whose authority is high in the medical world, and is part of a system not yet exploded,—*the system of prescribing for names and not for things.* The patient is treated for a disease which has been called delirium tremens, the present symptoms are only attended to, and the cause and origin of the affection are overlooked. What are the true principles of treatment?—In the first variety, where the delirium is produced by a want of the customary stimulus, there is no doubt that patients have been cured by the administration of the usual stimulants, by giving them wine, brandy, and opium. Indeed this seems to be the best mode of treating this form of the disease. But is it proper or admissible in the second variety, where the delirium is caused by an occasional excess in the use of ardent spirits?—Certainly not. Yet what do we find to be the ordinary practice in hospitals when a patient is admitted under such circumstances?—A man, who has been attacked by delirium tremens after a violent debauch, is ordered a quantity of porter, wine, brandy, and opium; and the worse he gets, the more is the quantity of stimulants increased. Now this practice seems to me as ridiculous as the old principle of treating a case of hydrophobia with the hair of the dog that bit. Let us consider what the state of the case is.—A large quantity of stimulant liquors have been taken into the stomach, the mucous surface of that organ is in a state of intense irritation, the brain and nervous system are in a highly excited condition from the absorption of alcohol, or in consequence of the excessive sympathetic stimulation to which they have been subjected. Are we to continue this stimulation?—I think not. What would be the obvious and natural result?—Increased gastric irritation, encephalitis, or inflammation of the membranes of the brain. The supervention of inflammatory diseases of the brain in delirium tremens is not understood by many practitioners, and they go on administering stimulant after stimulant, totally unconscious that they are bringing on decided cerebral disease. I have witnessed the dissections of a great many persons who died of delirium tremens, and one of the most common results of the dissection was, the discovery of unequivocal marks of inflammation in the brain and stomach. Broussais considers all such cases as merely examples of gastritis, and ridicules British practitioners for inventing 'a new disease;' but in this he is certainly wrong, for there have been several cases in which no distinct marks of gastric inflammation could be discovered. In all cases, however, where the delirium supervenes on an excessive debauch, there is more or less of gastritis; and though it may occasionally happen, that a patient under such circumstances may recover under the stimulant treatment, yet I am convinced that the physician will very frequently do harm by adopting it.

This complication of delirium tremens with gastritis is also exceedingly curious in another point of view, as it illustrates how completely the local symptoms are placed in abeyance, and, as it were, lost during the prevalence of strong sympathetic irritation. The patient's belly will not be tender; the tongue may not be red; the symptoms present may be indicative of a mere cerebral affection, and yet intense gastric inflammation may be going on all the time, and all the appearances of cerebral disease be quickly removed by treatment calculated to subdue a gastritis. Is this all theory? No; for we have practised on this principle with the most extraordinary success in the

Meath Hospital. We have seen cases of violent outrageous delirium subside under the application of leeches to the epigastrium, and iced water without a single drop of laudanum. I beg of you, if you meet with any cases of delirium tremens under such circumstances, to make trial of this mode of treatment, and record its effects, for it is important that they should be more extensively known. I have seen the whole train of morbid phenomena, the delirium, the sleeplessness, the excessive nervous agitation, all vanish under the application of leeches to the epigastrium. In some cases where after the sleeplessness and delirium were removed by this practice, and the tremors alone remained, we have again applied leeches to the epigastrium, and succeeded in removing the tremors also. On the other hand, where a stimulant plan of treatment was employed, and the patients died, we have most commonly found inflammation in two places, in the stomach, or in the brain or its membranes. The rule, then, is this,—in a case of delirium tremens from the want of a customary stimulus, use the stimulant and opiate treatment; but when it comes on after an occasional violent debauch, such remedies must be extremely improper. Adopt here every thing calculated to remove gastric irritation. We have facts to show that most decided advantage may arise from the application of leeches, even where the symptoms of gastritis are absent."

## II. Chronic Gastritis and Dyspepsia.

"We come now to consider chronic gastritis, an extremely interesting disease, whether we look upon it with reference to its importance, its frequency, or its Protean character. It is commonly called dyspepsia, and this term, loose and unlimited in its acceptation, often proves a stumbling block to the student in medicine. Dyspepsia, you know, means difficult digestion, a circumstance which may depend on many causes, but perhaps on none more frequently than upon chronic gastritis. In the great majority of dyspeptic cases, the exciting cause has been over stimulation of the stomach, either from the constant excess in strong highly seasoned meats, or indulging in the use of exciting liquors. Persons, who feed grossly and drink deeply, are generally the subjects of dyspepsia; by constantly stimulating the stomach they produce an inflammatory condition of that organ. Long-continued functional lesion will eventually produce more or less organic disease; and you will find, that in most cases of old dyspepsia there is more or less gastritis. But let us go farther, and inquire whether those views are borne out by the ordinary treatment of dyspeptic cases. When you open a book on the practice of physic, and turn to the article dyspepsia, one of the first things which strikes you is the vast number of cures for indigestion. The more incurable a disease is, and the less we know of its treatment, the more numerous is the list of remedies, and the more empirical in its treatment. Now the circumstance of having a great variety of '*cures*' for a disease, is a strong proof, either that there is no real remedy for it, or that its nature is very little understood. A patient afflicted with dyspepsia will generally run through a variety of treatment, he will be ordered bark by one practitioner, mercury by another, purgatives by a third, in fact, he will be subjected to every form of treatment. Now all this is proof positive that the disease is not sufficiently understood. What does pathology teach in such cases? In almost every instance where patients have died with symptoms of dyspepsia, pathological anatomy proves the stomach to be in a state of demonstrable disease. It appears, therefore, that, whether we look to the uncertainty and vascillations of treatment, or the results of anatomical examination, the case is still the same; and that, where dyspepsia has been of considerable duration, the chance is that there is more or less of organic disease, and that, if we prescribe for dyspepsia neglecting this, we are very likely to do mischief. I do not wish you to believe that every case of dyspepsia is a case of gastritis. This opinion has brought disgrace on the school of Broussais,

His disciples went too far, for whether the gastric derangement depended on nervous irritation, or anæmia, or disease of the liver, or mental emotion, they prescribed leeches and water diet, and thus very often brought on the disease they sought to cure. We may have functional disease, independent of structural lesion in the stomach, as well as in any other organ; it is no unusual circumstance, and the practical physician meets with it every day. A great deal of confusion, however, arises from the similarity of the symptoms. I remember an accomplished friend of mine getting into disgrace with one of the members of a board of examiners on this subject. He was asked to tell the difference between the symptoms of chronic gastritis and dispepsia, and in reply stated that he could not. For this he was nearly rejected, but I believe, on a candid review of the circumstances, you will agree with me, that he knew more of the matter than the learned professor. In ninety-nine cases out of a hundred of chronic gastritis there is no fever, scarcely any thirst, often no fixed local pain, and this leads persons away from any idea of the existence of an inflammatory condition of the stomach. What are the symptoms of a chronic gastritis? pain of occasional occurrence, flatulence, acidity, swelling of the stomach, fetid eructations, sensation of heat and weight about the epigastrium, and perhaps vomiting. Well, these are also the symptoms of dyspepsia, whether it be accompanied by inflammation or not. How then when called to a case of this kind, are you to determine the point? I must mention to you here, that it is often hard to do this with certainty. There are two circumstances, however, which you should always bear in mind, as they will afford you considerable assistance in coming to a correct diagnosis; *first, the length of time which the disease has lasted*; secondly, the result of the treatment which has been employed. You will find, that where the disease is a chronic gastritis, that it has been of some duration, that it has come on in an insidious manner and that it has been exasperated by the ordinary treatment for dyspepsia. Many persons think, that if you give a patient medicine, without regulating his diet or issuing a prohibition against full meals, that you can cure him, and that, as he has no fever, and can go about his usual business, there is no necessity for antiphlogistic regimen. But as the disease goes on, he complains of pain in the stomach during the process of digestion, feels uneasy after dinner, there is an unpleasant degree of fulness about the epigastrium, he also experiences a variety of disagreeable symptoms sometimes being annoyed with pain in the chest, sometimes he says he feels it in the region of the heart, and sometimes about the cartilages of the eighth and ninth ribs. These symptoms subside after the process of digestion is completed, but during its continuance they harass the patient. Very often relief is obtained by vomiting, and hence some persons are in the habit of throwing up their food for the purpose of relieving themselves, and consequently can have no benefit by it. In some cases digestion goes on until the food seems to reach a particular point, and then an acute feeling of pain is experienced. In these cases the gastritis is generally circumscribed, and is likely to terminate in circumscribed ulceration. Various fluids are rejected from the stomach, during the course of a gastritis; sometimes acid, sometimes alkaline, sometimes insipid and sweet, sometimes bitter and bilious. There is generally a degree of fullness about the stomach, and the epigastrium is tender on pressure, but no decided tumour either of the pylorus, liver, or spleen, although the epigastrium presented that appearance of fulness and tension termed by the French 'renitence.' The bowels, too, are constipated, and this is a matter worthy of your attention, for it sometimes unfortunately happens that the practitioner, mistaking the gastritis for simple constipation, goes on prescribing purgative after purgative, until the patient gets incurable disease of the stomach. I know a case of a lady who gets one stool a week by taking eight drops of croton oil. Some years ago, she was in the enjoyment of excellent

health; her bowels happened to get confined, and she was treated by a systematic practitioner with continued purgatives; her bowels are now completely torpid, except when they are subjected to this unnatural stimulus. There are thousands of persons treated in this way, because practitioners look to consequences and not to causes.

There is one remarkable difference between acute and chronic gastritis, which deserves your attentive consideration, as it exemplifies a law applicable to all viscera under similar circumstances, and this is, that the sympathetic irritations are not so frequent or so distinct in chronic inflammation as in the acute form, and hence, in a case of chronic gastritis, we almost never have fever, and the affections of the nervous, respiratory or circulating systems are by no means so well marked. It may even go on to actual disorganization of the stomach, and yet the patient will not complain of any particular symptom during its whole progress, which you could set down as depending exclusively on the sympathetic irritation of gastritis. Some of these cases, called dyspeptic phthisis, by Dr. W. Philip, are most probably examples of the sympathetic irritation of the lungs from chronic gastritis. Another case, respecting which much error prevails, is what has been called hypochondriasis. Persons labouring under these affections are condemned to run the gauntlet of every mode of treatment, sometimes (and fortunately for themselves) they are sent to travel, sometimes they are treated with musk and antispasmodics, then with the mineral acids, then with purgatives and mercurials, and lastly with bark, nitrate of silver, and stimulants. They go about like spectres from one practitioner to another, trying remedy after remedy, alternately sanguine with hope or saddened by disappointment, until at last they die, and, to the astonishment of all the doctors, the only disease found, on dissection, is inflammation and thickening of the mucous surface of the stomach. A condition, which, under these circumstances, it was difficult to say whether it was the original disease, or produced by '*fair trials*' of a number of powerful agents. Hypochondriasis is not always gastritis; but it is now found, that in many cases it commences and terminates with disease in the upper portion of the digestive tube and the assisting viscera. This you must always bear in mind.

Chronic gastritis terminates in various ways. Sometimes the inflammation is limited to a particular spot of the stomach, and here we frequently discover circumscribed ulcerations. In very bad cases these ulcers go on perforating the various coats of the stomach, until at last the contents of that organ escape into the serous cavity of the abdomen, and the patient rapidly sinks under a fatal peritonitis. It does not follow, however, that, in all cases of perforation, the contents of the stomach get into the peritoneum, causing death. Very often adhesions are formed, and the base of the ulcer is the serous covering of some other portion of the digestive system, or a false passage may be formed into the colon. One of the most common terminations of a chronic gastritis is, that the inflammation extends to other viscera; the patient gets disease of the liver, spleen, peritoneum, or lungs, and sinks under a complication of disorders. It was somewhat in this way that Napoleon died. He laboured for a considerable time under chronic disease of the stomach, which seems to have been overlooked by his medical attendants, and this terminated in the extension of disease to various other organs."*

## XVII. Mr. Middlemore on a Peculiar Ulceration of the Eye-lid.†

We are induced to notice this paper of Mr. Middlemore's because it contains an excellent description of a peculiar ulceration, and because it forms a respectable addition to our stock of infor-

* London Medical and Surgical Journal, No. 104.

† Monthly Archives of the Medical Sciences, Feb. 1834.

mation on the sores that occur about the face in persons advanced in life. There are portions of the paper which we cannot abbreviate, and the most that we can do in the way of condensation is comprised in selection and arrangement.

The disease generally commences as a small, white, hard tubercle, towards the inner canthus, but not quite at the tarsal margin. If you pinch it between the fingers, it is found to be remarkably hard, the skin seems implicated in the morbid change, and is not moveable upon the surface of the tubercular elevation; but you may raise it from the orbicularis muscle. There is no pain in the part, and the health is probably good.

If the patient does not irritate the tubercle it very gradually enlarges, or a similar tubercle forms near it. The appearance is then much the same as would be caused by introducing a knotted thread, or a series of minute white beads beneath the skin of the eye-lid.

"In the course of time one tubercle may become much enlarged, or several of them may form, not in a mass, for they do not exactly coalesce, but assuming a somewhat circular arrangement, having a depressed portion of healthy skin (its vascularity will be sometimes a little increased) in their centre; and they may occupy in their formation to this extent, three or four years, if the patient will not pick them, but at this period they begin to feel uncomfortable, and itch a good deal, so that they are generally picked or irritated, and then a little matter is discharged from their surface, sufficient to form a scale, which is soon detached, and when removed, exhibits a small sore in the centre of an elevated white knob, the surface of which is pale and depressed, but by no means painful. The ulceration continues to extend; its margin is surrounded by a series of small, white, knotted indurated elevations, which possess all the characters of the original tubercle. The ulceration heals at one part of its edge, and extends in a different direction; the cicatrix, when formed, is thin, and of a pale red colour, and is surrounded by much corrugation of the skin. In the progress of the disease, the cicatrix may give way, may become the seat of ulceration, and when this has occurred, it does not afterwards heal; the part once affected, originally affected with this peculiar form of ulceration, may heal, a cicatrix may form, which cicatrix may eventually ulcerate, but when this has happened the part does not afterwards heal.

The disease may have proceeded so far, and have produced scarcely any pain whatever; but it soon travels towards the inner canthus, arrives at the tarsal margin, and the mucous membrane of the eye-lid becomes red and almost pulpy, like fine dusky red velvet; the eye is rendered irritable, and frequently waters, and the injurious effect of this lachrymation is soon evinced upon the sore over the surface of which the tears, altered in their qualities and increased in quantity, flow."

The disease has generally occupied five or six years in arriving at this stage. As soon as the conjunctiva is affected important changes are observed. The sore extends, still surrounded and bordered by the elevated and hardened skin, which has a white and irregularly tuberculated appearance; the surface of the sore is still pale and languid, and the progress of ulceration is slow; but it is now painful and uneasy, the pain being described as a burning or aching sensation. The sore discharges a thin and somewhat offensive and irritating fluid; and its surface is changed in appearance by the irritation of the tears as well as by other causes.

"At this period the progress of the ulceration becomes more rapid; a great part of the eye-lid is eventually destroyed; the eye-ball is isolated in a great measure from surrounding parts, (for the sclerotica never accepts this peculiar morbid action, but the eye-ball generally sloughs and collapses from the destruction of neighbouring structures,) and the patient dies worn out by the constant and exhausting irritation the disease produces. Prior to the occurrence of this fatal event, the sore becomes more irritable and painful, chiefly from the lodgment of its own

secretion and from the flow of tears upon it. The countenance also undergoes a particular change, the complexion becomes sallow or slightly cerulean, the face becomes pinched and acquires a character of exhaustion such as we see produced by the endurance of unceasing gnawing pain. The constitutional symptoms are those of irritability and exhaustion."

Mr. Middlemore has not observed that the neighbouring absorbing glands have become affected. The period during which the disease may continue materially depends on the constitutional condition of the patient. Mr. M. has known a person live for upwards of twelve years after the appearance of the incipient pimple.

Passing over a case which is related, we may pause for the author's opinions on the treatment. They will not detain us long.

Excision is productive of no advantage, the disease reappearing in the wound. Cleanliness, the application of the chloruret of soda, and the use of an aqueous solution of opium when the pain is excessively severe, constitute the sum of the local measures. The general means consist of the allowance of a generous diet, and the administration of the sulphate of quinine or the compound decoction of sarsaparilla.

This is the best plan of treatment with which Mr. M. is acquainted, and this he has found most adapted to protract existence and render it comparatively easy.

Within the last year some cases have occurred which appear to wear a more favourable aspect, and to raise some hopes in the mind of Mr. Middlemore. The instance on which he seems chiefly to dwell we shall place before our readers in the words of the narrator.

*Case.* "Thomas Sprawson, ætat. 59, a builder, has an ulcer about as large as a sixpence at the inner canthus of the left eye.

*Characters of the sore.*—The surface of the ulceration is a little depressed and rather pale and smooth; its edges are slightly raised, indurated, and irregularly tuberculated; it discharges a thin watery fluid, which slightly irritates the surrounding skin; the sore is scarcely at all painful, but the contraction of the surrounding parts has drawn down the upper lid.

This patient is healthy in appearance, and says he has enjoyed a good state of health all his life, and is now pretty hearty.

*History.*—A little pimple appeared at the inner canthus about three years ago; this was followed by two or three others, which arranged themselves in a somewhat circular manner, leaving a portion of healthy skin in the centre; this apparently healthy portion of skin ulcerated in the course of a few months, and obtained, as its margin, the tubercular elevation of the cutis, which I have just described. Since that period the ulceration has been extending and has not appeared to be checked—influenced in the slightest degree—by any measure his medical attendants have employed for his relief.

When I first saw this gentleman I placed him upon a regulated system of diet, and directed him to take, three times a day, four scruples of the carbonate of iron, and a few grains of blue-pill and conium in the evening, and to apply to the sore a little black wash prepared with a large quantity of calomel. At this second visit, the ulceration had completely healed, and his health had much improved, and this state of amendment still continues, from, as I believe, a rigid perseverance in the foregoing plan of treatment, and I am the more disposed to this opinion from learning that his disease was increasing at the time I first saw him, and also from knowing that the same treatment has appeared to effect an equally desirable change in the condition of the other similar cases which, as I have stated, are now under my care."

In drawing a parallel between this disease and "cancer," Mr. Middlemore makes one very flattering remark. He observes that it is more manageable by remedial agents, and "not unfrequently cured by judiciously conducted treatment." We find a difficulty in reconciling this assurance with the substance and the spirit of the paper before us,

In the observations with which it opens, we are told that the disease is incurable in its character. Those observations were originally published a year before the present paper appeared. Mr. Middlemore informs us that *four* cases occurred in his practice in the interval, and in each his remedies have been attended with "decided advantage." Of those four cases only one is related, and that, we suppose, the most satisfactory and the most successful. Yet that can scarcely be yet considered as a fair example of a cure. How then can Mr. Middlemore assure us that the disease "is not unfrequently cured."

The ulcer now described appears to us to resemble those which occasionally are witnessed on the ala of the nose, the cheek, and the neighbourhood of the inner angle of the eye, in individuals advanced in life. They are and yet they are not malignant. They are very seldom permanently healed, and yet they do not seem to contaminate other organs or other parts. They are always remarkably tardy in their progress, and display some of the peculiar characteristics of ulcerated scirrhus.—The disease generally commences in a tubercle—the ulcer which results has a sort of tuberculated surface, part being slightly injected, part glassy and pale—the discharge is thin and disposed to be sanious—the edges are commonly everted—the ulcerative action predominates with difficulty over that of tubercular deposition. Such is the hasty picture we would draw from cases which recollection presents at the instant to our mind's eye.

We have never seen these ulcers cured, though others and ourselves have tried almost every plan that ingenuity or experience could suggest. The treatment which Mr. Middlemore conceives is likely to succeed has failed in the ulcers we have attempted to describe. We think that those and Mr. Middlemore's "peculiar ulceration of the eyelid" are similar, if not identical in nature.

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XVIII. CASE OF HYPERTROPHY OF THE MAMMÆ. By DR. HUNTER LANE.*

A case of this description has been related by Dr. Hunter Lane. It displays an interesting feature—benefit from remedies directed to the establishment of the catamenial secretion. It is also accompanied by some observations and by cases collected from various sources which are not undeserving of the attention of those whose occupations preclude from laborious researches into the stores of medical literature. We will first present a brief memorandum of the case.

*Case.* In May last Dr. Lane was consulted respecting a farmer's daughter, nineteen years of age, of good constitution and of sanguine habit. The mammæ were of great dimensions; the circumference of the left was twenty-three inches, and that of the right was greater; when retained on the chest by the hand, their height amounted to seven inches and a half. She experienced great inconvenience when deprived of the support afforded by the stays.

"From the account given by the surgeon in attendance, it appeared that she had never menstruated, but had occasionally suffered from pains in the head, back, and abdomen which, so far as he was enabled to judge during a period of three or four months, seemed to coincide with those which usually forerun and accompany the eruption of the menses, observing, likewise, a similar periodicity in their recurrence. The treatment he had adopted had been limited to emmenagogue pills of aloes, myrrh, and calomel, with saline aperients, and the occasional application of leeches behind the ears. The enlargement of the breasts had been first noticed when she was seventeen years of age, their developement having commenced at fifteen. The girl described her feelings in the breasts up to about her eighteenth year as rather pleasant,

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* Monthly Archives of Medical Science, Jan. 1834.

experiencing hot tingling sensations in them. After this time she felt nothing to attract her attention to them, unless the occasional feeling of a dull, heavy pain in the breasts, which was generally the worst at those times when she was afflicted with the head-aches and pains in the back."

Dr. Lane, conceiving that the proper indication was the establishment of the catemenia, ordered ten grains of the ergot of rye twice daily, with one of the following pills thrice in the same period.

℞. Pilulæ Hydrargyri. . gr. xxiv.
Iodini . . . . . gr. xij.
Morphiæ Muriatis . . gr. j.
Confect. Aromaticæ ℈ss.
Ft. Massa in Pilulas xij. dividenda.

She continued this plan from the 18th May to the 25th, when she suffered under an accession of her former symptoms. Dr. Lane prescribed bleeding and the hip-bath, with great relief. On the 28th the pills were discontinued, the mouth being under the influence of mercury; but the ergot was persevered in till the 3d of June. There was then no improvement, and all medicinal treatment was discontinued.

"About the 16th of June she was directed to recommence the ergot of rye, taking ten grains thrice, instead of, as previously, twice a day. With this she continued for a week, when on experiencing a return of her periodical ailments, there was observed a slight appearance of sanguineous discharge from the vagina which continued for four or five hours. She was now recommended to give up her medicines for a time, but to resume them every month, for a few days before the succeeding menstrual evacuation was to be expected. With this advice she proceeded for two months, at each period having an imperfect vaginal discharge. On the third month she again began to take Iodine, ten drops of the tincture three times a day in a wine glassful of water, and the ergot of rye as usual. Her menses appeared at the due time, and more abundant in quantity. From this time the ergot of rye was entirely discontinued. With the tincture of iodine she persevered for upwards of a month, when it was thought necessary, in consequence of some uneasiness of the throat and fauces, to suspend it. On examining the breasts in September, they were found to have lost about one-sixth of their volume."

As she now appeared to be doing well, she was recommended to trust to Nature. In the latter end of November, Dr. L. found that her health was perfect—that the catamenia had continued to appear with regularity, and that the mammæ scarcely exceeded their natural dimensions.

The case is undoubtedly interesting in its character. It is accompanied with some references to facts which are contained in various medical writings, that may prove instructive or amusing to the reader.

Hypertrophy of the mamma, though observed most commonly in the female sex, has sometimes been noticed in the male. It would seem to have occurred in persons much addicted to venereal excitation. It would also seem to have formed a feature of what has absurdly been reputed hermaphrodism. Renauldin relates a case of this description.

*Case.* In a young man, aged 24, the breasts were as large as those of a woman, and appeared completely developed and organised. The individual was of a spare make, contracted chest, projected shoulders, feminine voice, juvenile countenance, and beardless chin; his pelvis was broad and expanded, the pubis prominent and sparingly supplied with hair, which was entirely wanting in the perineum, on the thighs and arms, and in very small quantity in the axillæ; his testicles were only of the size of small nuts; his penis appeared like a mere tubercle, only unfolding itself during erection to the length of about an inch and a half. He had not experienced any thing remarkable at the pubertal evolution which took place when he was fourteen years old. He did not, however, omit, it is stated, to take advantage of the virile powers then acquired. At sixteen his breasts began to increase in volume; at eighteen they

had acquired considerable magnitude, and for two years exuded a serous fluid resembling milk. In order to rid himself from the inconveniences attending their inordinate volume, he was compelled to support them by linen bandages fixed to the shoulders, and passed round the chest. This youth manifested a lecherous disposition, exhibiting in every respect the sensual propensities, and indulging in all the voluptuous pleasures of man with but one exception, which was a strange repugnance he evinced to touch the breasts of a female.

Stimulus applied to the organ itself, or its immediate neighbourhood, is capable of occasioning increased development. The famous instance of the man whose mammæ enlarged from the suction of an infant's mouth, is one exactly in point.

The sympathy between the organs of generation in the female and the mamma, would seem to constitute the mysterious cause of extraordinary increase in the latter. Menorrhagia sometimes tends to this effect, but amenorrhœa is more common and more powerful.

Bouilli mentions the case of a female whose breasts weighed 30lbs. each. This inordinate development had arisen and proceeded with the cessation and continued suspension of the catamenia. Emmenagogues, scarifications of the ankles, and dry-cupping on the inside of the thighs, ultimately reduced the mammæ to their proper size.

Dorsten describes the case of a young woman, who, on wakening one morning, found her breasts so much enlarged, that she was obliged to confine herself to bed. The enlargement proceeded notwithstanding the employment of fomentations, revulsive remedies, &c. until they presented a circumference of 37 inches, and an elevation of 18 inches. The catamenia which had not appeared for six months, could not, by any means that were adopted, be restored. The female at length sunk, and on weighing the left breast after death, it was found to be 64lbs.; its substance did not appear to have been organically altered, but only to have suffered hypertrophy."

"Mr. Hey, in his 'Practical Observations in Surgery,' gives the case of a girl fourteen years old, who was admitted into the Leeds Infirmary on account of the very great enlargement of both breasts. From her infancy they had been somewhat larger than the natural size. She was of a delicate habit, but was not unhealthy before the attack of this affection. She had begun to menstruate when twelve years and a half old; being ignorant of this habit of her sex, and ashamed to mention her situation, she washed that part of her linen which was stained, and continued to wear it while wet. The evacuation ceased suddenly, and had not returned when she was admitted into the hospital.

Many means were used to bring on the excretion, from the supposition that the enlargement of the breasts was owing to this obstruction. The obstruction, however, was not removed, and the breasts continued to grow larger, until at length they attained so enormous a size as to prevent her walking upright, and so established a curvature of the spine. There appearing to be now no means of relieving her from the immediate consequences of this weight but by amputation, the left breast, which was the larger, was extirpated. On examination, the breast presented the appearances of pure hypertrophy. The most remarkable feature of this case exists in the fact of menstruation following the amputation of the mamma, afterwards proceeding regularly, and inducing the absorption of the right breast, until, at the age of 23, it was not half the size of the breast that had been removed.

Cerutti has described similar cases, in the majority of which the cause of enlargement was usually observed to be a suspension of the menses, and the most successful treatment, that of calomel combined with sulphuret of antimony, and the adjunctive aid of mercurial frictions, at the same time employing such general and local means as were likely to recal the catamenia."

We have thus run over the instances cited by Dr. Hunter Lane. We heard of one remarkable instance of mammary hypertrophy. The female, a young girl, came up to St. George's Hospital. On her journey she scratched the skin of the breast with the bone of her stays. Erysipelas attacked her immediately after her admission into the hospital, and she died, we believe, in twenty-four hours.

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## XIX. NOTICES OF MODERN GERMAN WORKS. By ROBERT J. GRAVES, M.D.

### EFFECTS OF IODINE.

In a preceding portion of this department of the Journal, the experiments of Helmenstreitt, and those of Dr. Graves on the powers and effects of iodine were extracted from the Dublin Journal. Perhaps it may appear impertinent to refer to the subject again. Yet we cannot refrain from making some remarks on the confident anticipations in which Dr. Graves appears to indulge, respecting the advantages likely to accrue from the wide application of that potent mineral.

"If it be true," says Dr. Graves, "that mercury may be made to affect the mouth more rapidly by means of giving sulphate of quinine to the patient during or after its use, as has been asserted by Doctor Harty of Dublin, there must be some remarkable difference between the effects of sulphate of quinine and iodine on the animal economy, a difference well worth investigating, inasmuch as these remedies are usually considered very similar in their mode of action, and are often ordered indifferently in the treatment of chronic diseases, such as scrofula. As Dr. Kluge observes, the modifying powers iodine exerts on the action of mercury, opens a new field of inquiry in the treatment of the venereal disease, and renders it an object of great interest to discover to what species or stages of syphilis one or both these remedies is adapted.

Doctor Kluge's experiments are of particular interest, when viewed in combination with the great encomiums, recently bestowed in France and in London on the efficacy of iodine and deutiodide of mercury in the cure of syphilis and various other diseases. We have seen that two remedies, usually classed together as tonics, differ most materially in their effects, sulphate of quinine and iodine. The former stops the paroxysm of ague and induces salivation; the latter does not stop ague, and checks mercurial ptyalism. Again, when during a course of iodine, the patient becomes subject to pain in the stomach; this, as Lugol has shewn, is best remedied by sulphate of quinine!

What are the therapeutical relations of another tonic, arsenic and iodine?—The former certainly exerts a powerful influence in controlling ague, and I have seen it produce salivation. Would iodine be useful in guarding against or mitigating its occasional bad effects?—If experience answered in the affirmative, no greater boon could be conferred on the practitioner, who would then be enabled to use long continued arsenical courses in lepra, psoriasis, and various other diseases of the skin, without fear of producing unpleasant or dangerous effects on the constitution."

In this brief passage there is much to give us pause. Dr. Graves has founded some curious conjectures on more curious statements. Our business is chiefly with the latter.

Dr. Harty, of Dublin, would seem to have asserted, that sulphate of quinine, given before or after the exhibition of mercury, accelerates the affection of the mouth by the latter. That this is opposed to common observation is merely an obvious truism. The experience of all surgeons and physicians has shewn them that measures of depletion always augment the influence of mercury. Bleed a man and keep him low, and mark how soon salivation is effected. Reasoning would lead the reflecting practitioner to suppose that converse circumstances would produce the opposite effects. And facts appear to warrant the suggestions of experience and of judgment. We suppose it will be granted that few situations afford more ample opportunities of watching the

effects of mercury than the wards of a Lock Hospital. Observation in those wards does not confirm the ideas of Dr. Harty. If a patient is weak, he is ordered the sarsaparilla or the quinine, in order that he may *bear* mercury, and not be rapidly salivated by it. Again and again have we given quinine with this view, and with this result. We join issue with Dr. Harty. We maintain that, cæteris paribus, quinine tends to prevent and not to produce salivation.

Dr. Graves observes that iodine and quina are usually classed together as tonics. They may be *classed* together in the schools, but the brittle and unsubstantial junction is like that of Nebuchadnezzar's image, one part iron and the other clay. They may be rivetted —they never can amalgamate.

The best mode of testing the real action of a remedy, is surely to push it to the point of producing injurious effects. Apply this test to iodine and quina. The patient who takes the former grows pale, emaciated, nervous—has fluttering at the epigastrium—a tendency to syncope—a tremulous and frequent pulse. He rallies under stimulants. Is this the action of a tonic? The man who is under the influence of quina displays very contrary phenomena. The tongue is probably loaded—the face is flushed—the head may ache, and fulness in it is experienced—the pulse is full—the vascular system is excited and replete.

In these two series of effects we perceive no resemblance nor any analogy. The obvious deduction from their observation is that, cæteris paribus, iodine debilitates and quina strengthens.

Perhaps Dr. Harty or others may urge that though iodine, pushed to a certain extent, occasions the results we have described, smaller and more guarded doses possess less exceptionable tonic properties. They may probably refer to the instance of opium, which, in moderate quantities, is said to be a stimulant, and a powerful sedative in larger. We cannot allow them the benefit of this analogy, nor the use of this conjecture. We have seen iodine employed extensively, but we never yet saw it act as a tonic. We have indeed seen patients received into a hospital, every circumstance altered in their favour, and iodine given in small doses. Such patients have gained flesh and acquired strength, but we could not avoid entertaining the suspicion that the results were vicious, the experiment deceptive. Even in those instances, the most favourable we have witnessed, the mineral was seldom continued long without the supervention of unpleasant symptoms. So soon as the beneficial influence of better or of regulated diet, of repose, and of appropriate attentions had worn off, the depressing action of the iodine was more and more apparent.

There is a fallacy attending the operation of remedies like iodine, mercury, &c. which deserves to be adverted to. If they tend to effect the removal of a disease which is wearing down the powers of the patient, they act pro tanto and pro tempore as tonics. This is not unfrequently the case with mercury, which, under ordinary circumstances, undoubtedly displays no tonic properties. Nothing is more common than to see a person affected with secondary, or even neglected primary, symptoms, acquire strength and embonpoint so soon as mercury is properly administered.

Our readers may gather from these remarks that we do not consider iodine a tonic in the fair and general acceptation of the term; nay, we deem the notion pregnant with danger, and lift our voice most earnestly against it. The inexperienced practitioner should know that in using iodine he wields a potent and a deadly weapon. If *he* employs it as he would a tonic, he will probably find occasion to lament his error.

There are two particular statements to which we shall allude before we close these imperfect observations. The first relates to the success derived from iodine in cases of secondary symptoms. Dr. G. observes that great encomiums have recently been bestowed on it, in reference to these affections, by surgeons in London and in France. Of this we are aware, and we had the pleasure of conversing with some who have advo-

cated the remedy in public and in private. We have given it in several cases of node, and in some of cachectic ulceration of the skin and of the throat. We have also seen it frequently exhibited by others. Yet such has been our evil fortune, that we never *saw* it prove of service. It was lately prescribed for a patient with node, in the Lock Hospital. The man took five minims three times daily, and had a meat diet in addition. After the medicine had been continued for ten days or a fortnight, the patient became so debilitated and depressed, that the iodine was instantly desisted from, and brandy and ammonia substituted for it. In many instances it has seemed to do neither good nor harm; but in those the dose was small, and the patients had beer and good diet, which might probably counteract any mischievous effects. On the whole, we feel no confidence in iodine, as a remedy in syphilitic symptoms.

The second statement relates to the administration of iodine in cases of mercurial salivation.

Now this is observed under three sets of circumstances. In one, the patient is in tolerable health, and salivation results from a very inconsiderable quantity of mercury. It is said to depend, in such a case, on peculiar individual idiosyncrasy, and possibly the notion is correct.

In a second instance, salivation is the consequence of mercury, actively pushed for an acute inflammatory malady, as hepatitis or phrenitis.

In a third, salivation is induced by a moderate quantity of mercury, given as a course for syphilis, or for any other disease. In this case, the patient is almost always weak, or his constitutional powers are impaired, or he is kept too low, or his room is warm, or some analogous cause exists. We had under our charge a case which illustrates this position. A female who had drunk great quantities of gin was affected with tubercular eruption, after a primary sore. We put her on the pilula hydrargyri, five grains twice daily, and conjoined with it a diet of animal food. In a very few days she became salivated, and had some symptoms of the mercurial erythismus. We discontinued the mercury of course; but as soon as we thought she could again support it we resumed its exhibition, adding porter to the diet. Again and again the same set of symptoms occurred. It struck us that the stimulus to which the patient had been previously habituated might enable her to bear the debilitating action of the mercury. We directed her to take a glass or two of gin during the day, and immediately a change for the better was observed, and the mercury was taken without inconvenience.

Thus, then, we remark that salivation may result from a small amount of mercury and peculiar idiosyncrasy—from mercury rapidly thrown in for acute inflammation—and from ordinary doses in debilitated patients.

Supposing iodine to possess the power of checking salivation, we apprehend that it would be applicable only to cases of the first description. In the second class, salivation is probably salutary, and, at all events, its speedy arrest would be dangerous, if not destructive. In the third class, salivation is the consequence of weakness and exhaustion, and we need not repeat our reasons for believing, that iodine is not the remedy for *those* conditions. Fresh air, good diet, beer, and stimulants, are infinitely more adapted to them.

If iodine has really the virtue ascribed to it, that virtue may be safely and judiciously exerted in instances of salivation dependent upon idiosyncrasy. The cautious reader may hesitate in admitting even this as proved. We can only refer to the assertions of Professor Helmenstreitt, and the corroboration they receive from Dr. Graves. We are irresistibly inclined to acknowledge a degree of doubt.

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## XX. On Fractures of the Lower Jaw.

Dr. Chester has inserted a long and a learned paper on this subject in the Monthly Archives of the Medical Sciences. We will not follow the laborious

author in his various researches on the symptoms and varieties of this comparatively simple accident. We were slightly startled at the opening sentence.

The less frequent occurrence of fractures than of dislocations of the inferior maxilla may, perhaps, be assigned to its great mobility—the density and firmness of its tissue, and also its arched shape."

We confess that this is totally opposed to our experience. We have seen a fair number of cases of fracture of the lower jaw—very few of dislocation.

But our object is to notice the various plans of treatment collected and compared by the industry of Dr. Chester.

"The manner in which reposition, when effected, is to be maintained has formed in all ages a fruitful source of contrivances, since the simple plan of securing the lower to the upper maxilla prevented the introduction of food. In very oblique fractures, with no displacement, the mode very lately introduced of fastening the nearest teeth together with wire or thread was proposed by Hippocrates, though Celsus advised horsehair. If any displacement was present he applied two straps of leather externally, resembling, in some degree, a sling. Paré first used splints, adapted to the shape of the lower jaw, and formed of leather; Heister used similar ones of pasteboard. These pressed merely on the outer side of the bone, and no counter pressure being applied on the inner, displacement could easily occur in that direction, so that Petit, Aitken, and Boyer omitted splints entirely, and used bandages; Bottcher and Schreger applied a hard rolled bandage on the inner side of the bone, behind the chin, and splints on the outer surface; Muys and Bertrandi interposed a piece of ivory, slightly excavated above and below, between the upper and lower rows of teeth, and Boyer and Sir C. Bell recommend similarly shaped pieces of cork. These contrivances do not answer all the indications, in many instances they are inapplicable, and in all troublesome to the patient. The roller recommended by Bottcher has many inconveniences also; in very corpulent persons it cannot be applied from the impediment which it offers to respiration; swelling of the sublingual or lymphatic glands prevents its use, and if the fracture is in the neighbourhood of the chin, the numerous muscles inserted there render its utility doubtful. The application of splints renders it absolutely necessary that the mouth shall remain closed till a cure is effected, and thus any internal examination of the injury is prevented. The saliva which is secreted more copiously than usual is retained in the mouth, and a very unpleasant taste is thus produced. The use of all solid food and of verbal communication with friends are also rendered impossible. Perhaps this last-mentioned disadvantage is diminished when the cork is used as advised by Boyer, but then we may fear, as occurred in one instance, that the anterior fragment, more especially in fracture of the ascending ramus or in fracture of both sides, will be pressed too much upwards, against the superior maxilla by the bandage which secures it. Neither cork nor ivory is of any advantage in fracture near the chin, as the teeth in this situation do not correspond."

We have treated many cases of fractured lower jaw, and we never experienced much difficulty in their management, though the fracture was double or complicated in some instances. He must be a clumsy surgeon who requires more than a pasteboard splint, a double-headed roller, a night-cap, and, in some few cases, a piece of cork, to complete his apparatus. We cannot but consider that some of the objections urged by Dr. Chester are rather hypothetical than practically weighty. The impediment to respiration may surely be prevented by attention to the bandage. The closure of the *mouth* does not prevent examination of the fracture, because, though the teeth are kept in contact, the lips are not. Nothing is more easy than to ascertain the apposition of the fractured portions. The line of the teeth, and the surface of the gum, is a certain and a simple guide. The prevention of the use of solid food

must necessarily result from a bad fracture of the jaw, whatever the method of treatment may be, for no mechanical contrivance could compensate for the motions and disturbance that mastication of tenacious substances must give rise to. Formerly, no surgeon would allow the anterior portion of the jaw to be displaced, so long as an opportunity of inspection was permitted.

No one plan of treatment appears to be adapted to all cases. In some, apposition is effected with more facility than in others, and much depends on the sagacity, judgment, and experience of the surgeon. Dr. Chester, however, is difficult to please, for he terms the preceding plans of treatment useless and inconvenient. They may be troublesome; but, with all due deference to Dr. Chester, we must deny that they are useless. The following is the plan that he prefers, on two accounts —its efficiency and its *simplicity*.

"From these useless and inconvenient plans of treatment, we turn with pleasure to one lately recommended by Rutenick; which, as improved by Kluge, is very simple, and at the same time effectual. It consists, 1st, of small silver grooves, varying in size according as they are to be placed on the incisores or molares, and long enough to extend over the crowns of four teeth; 2d, of a small piece of board, adapted to the lower surface of the jaw, and in shape resembling a horseshoe, having at its two horns, two holes on each side; 2d, of steel hooks of various sizes, each having at one extremity an arch for the reception of the lower lip, and another smaller for securing it over the silver channels on the teeth, and at the other a screw to pass through the horseshoe splint and to be secured to it by a nut and a horizontal branch at its lower surface; 4th, of a cap or silk nightcap to remain on the head, and 5th, of a compress corresponding in shape and size with the splint. The net or cap having been placed on the head, and the two straps fastened to it on each side, one immediately in front of the ear and the other about three inches farther back, which are to retain the splint in its position by passing through the two holes in each horn; a silver channel is placed on the four teeth nearest to the fracture, on this the small arch of the hook is placed, and the screw end having been passed through a hole in the splint, is screwed firmly to it by the nut, after a compress has been placed between the splint and the integuments below the jaw.

If there is a double fracture, two channels and two hooks must, of course, be used."

There is no reasoning on matters of preference and taste. We think we would rather submit to the ordinary apparatus than to this, and mastication would probably be unpleasant with a brace of silver grooves, and the arch of two hooks between the teeth. We have never seen this method tried, and, therefore, we cannot speak practically on its qualities.

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## XXI. CASE IN WHICH A TOOTH WAS LODGED IN THE RIGHT BRONCHUS.*

This curious and interesting case is related by Dr. Houston, in the last Number of our excellent contemporary, the Dublin Journal.

*Case.* John Clare, æt. 29, had occasion to have the second molar tooth of the upper jaw, on the right side, extracted by an operation. On the first attempt, a fragment of the crown was chipped off, and removed from the mouth. On the second, the tooth was removed from its socket, but suddenly passed down the throat, and was not afterwards seen.

At this instant the patient felt a momentary, sharp, pricking pain at the top of the windpipe. This was instantly followed by a severe fit of coughing, which soon went off, but recurred again several times without any evident cause, and at each time with less and less severity, until, after a few hours it ceased to produce any further annoy-

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* Dublin Journal, Feb. 1834.

ance. He afterwards experienced a feeling of undefinable uneasiness in the chest; a sensation of weight in breathing; and a tendency to draw heavy sighs, which haunted and which kept his mind in a continual state of inquietude. Occasionally, but not at any regular intervals, he coughed up a little frothy mucus, perfectly untinged with blood or purulent matter.

A consultation of several eminent professional men was held upon the patient twenty-four hours after the accident. In addition to the symptoms mentioned previously, the following stethoscopic signs were noted down:— there was a mucus rattle in the lower part of the trachea, audible even to the naked ear, but very distinct when heard through the stethoscope. Both sides of the chest gave a perfectly and equally clear sound on percussion; but notwithstanding their similarity in this respect, there was a marked difference in the intensity of the respiratory murmur, the sound of the air entering into, and expanding the right lung, being obviously more feeble than that heard at the same moment in the left. There was, likewise, under the right clavicle, a slight sonorous rale, a deviation from the natural sound of breathing not discoverable in any part of the left lung. These signs were fixed and not modified or removed by any alteration in the position of the body; nor by causing the patient to expire with violence, or to take a full breath.

As usually happens, there were two opinions. The stethoscopists supposed that the tooth had passed into and was lodged in the right bronchus. Those who placed little confidence in auscultation hesitated, doubted, and denied. The evidence was not sufficiently conclusive to allow either party to be positive.

The patient was received into the hospital. He was attacked in succession with pneumonia, bronchitis, and pleuritis, first in the right lung, and subsequently in the left. On the eleventh day he died.

*Dissection.* The lungs did not collapse on opening the chest. The right was every where adherent to the parietes of the thorax, except posteriorly, where a considerable quantity of thin bloody fluid lay between the pleuræ. On the left side the adhesion was universal. On both sides the adhesions were composed of recent lymph, that on the left being the most so.

The substance of the right lung was hepatized in every part; its structure readily gave way under pressure with the finger; and when cut into, the surfaces of the section discharged a quantity of serum and dark fluid blood. The left lung, though less advanced in disease, exhibited all the marks of intense inflammation, its integral structure was dense, heavy, and swollen with engorgement.

The tooth lay in the right bronchial tube, about one inch beyond its commencement. The fangs were directed towards the lung, the broken crown looked up towards the larynx. The bone lay loose in the tube, and came away readily when caught between the points of the scissors. It had two long fangs, and when tested with the splinter, which had been broken off in the first attempt at its extraction, and presented to Dr. H. by the man while alive, was found to fit most accurately to it, and make a perfect tooth.

The mucous membrane was generally and intensely inflamed; the inflammatory action was not greater in the vicinity of the foreign body, than in parts which were remote from it.

Dr. Houston remarks, that the case deserves to be recorded on the following accounts:—

"*First*, for its rarity. *Secondly*, as it shows that a body, apparently much larger than the apperture of the rima glottidis, and one even of different form, can find a passage through that fissure. *Thirdly*, because it proves that so obnoxious a foreign body as a full grown molar tooth may lie for a time in the windpipe, without being productive of much inconvenience. *Fourthly*, on account of the additional evidence which it supplies of the justness of Mr. Key's statement, that the right bronchus is the usual resting place for foreign bodies, which have passed the larynx. *Fifthly*, on account of the practical ob-

servations made soon after the accident on the state of the respiration, by percussion and the use of the stethoscope. And *sixthly*, because by the *sectio cadaveris*, the character of inflammatory action induced by the presence of a foreign body in the bronchial tubes is demonstrated."

In following out the preceding observations, Dr. Houston indulges in reflections, at some of which we may succinctly glance. He accounts for so large a body as a molar tooth traversing so small an aperture as the rima glottidis, by supposing it was forcibly drawn in by the act of inspiration. This is no doubt the real explanation of the curious circumstance.

The freedom from pain or irritation experienced in the early period of the case is illustrated by the accurate remark of Louis—that foreign bodies in the air-passages produce more irritation when lying in the neighbourhood of the larynx, than when low down in the trachea; and that patients will be afflicted with cough and dyspnœa, or be free from suffering, according as the substances are carried up or down by the air in respiration.

"The case here related tends to confirm the opinion now generally entertained, that the right bronchus, in preference to the left, is that usually occupied by a foreign body carried by the air through the trachea. It was into this part that Mr. Key found a sixpence to drop, when let fall into the dead body through the rima glottidis; and it was here that he discovered the sixpence which caused the death of the individual whose case led to the performance of such experiments. The multiplication of proofs in favour of an important pathological fact, and one which may lead to greater accuracy of diagnosis, and greater precision in the performance of any operation, undertaken for the safety of human life, is of great value; and it is obvious, that such must be the tendency not only of Mr. Key's highly interesting communications, but of that just offered by me in corroboration of his statements. With respect to the possibility of saving, by an operation, the life of the individual in question, no more can at present be said, than that some attempts would most likely have been made, had the presence of the tooth in the right bronchus been clearly ascertained; and that the forceps recommended by Mr. Key, consisting of two long narrow blades, capable of being passed down the trachea through an artificial opening, might have been those to which a trial would have been given. It is clear, that the ordinary operation of making an opening in the windpipe, through which the offending body might be expelled by the efforts of expiration, would not have been sufficient. The tooth should have been actually lifted from the right bronchial tube by mechanical means; otherwise its removal could not have been accomplished. The weight of the body would have opposed its elevation from the bronchus by any force which the expired air could exert upon it; and its size and irregularity of form would have been unfavourable to its discharge through such an opening as the calibre and connexions of the trachea would admit of."

Dr. Houston justly draws attention to the value of the stethoscope in cases of this description. He concludes with truth that the absence of the respiratory murmur in one lung during inspiration, when, by percussion, it is proved that the cells of the organ are healthy, and filled with air, is, in a case of this nature, a clear proof of the presence of an obstructing body in the bronchial tube leading to the affected organ; and the circumscribed mucous rale, audible in the same place, may be considered as indicative of an increase of secretion, caused by the presence of the local irritation. In two patients in the Meath Hospital, the presence of these phenomena justified and led to the performance of successful operations for tracheotomy.

On the whole, the case is one of a highly interesting character.

Two cases are related by Dr. Evanson in the same number of the same journal, which may advantageously be added to the one detailed by Dr. Houston.

*Case.* In August, 1832, a female in-

fant one year and one month of age, was taken to the institution for the Diseases of Children, and seen by Dr. Evanson. The countenance expressed great uneasiness. The face was pale and swollen, the throat appeared swollen externally also, and the child very frequently applied its hand to the trachea, as if uneasiness were felt there. The breathing was peculiar; expiration was short but not impeded nor accompanied with any particular sound; inspiration, on the contrary, was long, forced, and difficult, and accompanied by a rough, rather stridulous sound; the voice was hoarse, but became clear when the child screamed loudly; fits of coughing occasionally occurred. On looking into the mouth, the tonsils were found enlarged, and the back of the pharynx inflamed. Bronchitis of the right lung was indicated by the stethoscope. The skin was hot, the pulse rapid.

The case was evidently (to the mind of Dr. Evanson) not one of croup. He suspected the existence of a foreign body. By dint of examination, he obtained the following account.

"Up to Friday previous to the day (Tuesday) on which the child was presented at the institution, it had enjoyed perfect health. While its parents were at dinner on Friday, the child, who was present, caught hold of some herring, which it forced into his mouth. Immediately, it was seized with a violent fit of coughing, and threw out what it had attempted to swallow, pointing to the ground where it fell. This was carefully examined, but no bone could be detected. The child continued to cough violently, and the mother tried to force down with her finger whatever might be sticking in the throat. On withdrawing her finger, the child appeared to become hoarse. To this violence may be attributed the inflammation of the tonsils and pharynx.

The child passed a sleepless night, coughing and hoarse. On the next morning, the peculiar stridulous breathing (already noticed) was perceived, from which we may infer it to have been the consequence of inflammatory action set up during the night. Castor oil was administered by the mother, we need hardly add, without any benefit to the symptoms, which becoming each day more severe and constant, the child was brought to the institution on the Tuesday following; the fourth day after the accident, previous to which the child had been in perfectly good health."

Dr. Evanson was almost confirmed in his opinion that some foreign body had been swallowed, and had found its way into the larynx or trachea. Mr. Crampton was requested to examine the case. He passed a bougie into the œsophagus and temporary benefit ensued. The antiphlogistic treatment was adopted—leeches to the throat, a purgative of calomel and jalap, and a strong solution of emetic-tartar. The bronchitis extended and both lungs became involved. It was now determined to have recourse to tracheotomy, and the child was carried to the Meath Hospital for that purpose.

The child was then in urgent danger, all the symptoms had become rapidly aggravated, and the general strength appeared failing fast. The surface was cold, face somewhat livid, and eyes glassy; no cough was heard, but much uneasiness was apparent. On excising a piece of the trachea some trifling relief to the symptoms was obtained. An elastic bougie was passed upwards two or three times through the wound, but no foreign body was detected.

On the morning after the operation amendment was perceptible, though the child still continued to suffer much from some of the prominent symptoms. The respiration was laborious, stridulous, and wheezing, being seventy in a minute, while an occasional violent fit of coughing was necessary to remove the copious secretion of thick mucus that blocked up the opening in the trachea, which was with difficulty kept clear. The child, however, began progressively to improve, calomel and hippo being the only medicines administered. An occasional fit of violent coughing, at times threatened suffocation, but was to be attributed to the cause already assigned—the blocking up of the opening, with the profuse and

tenacious mucous discharge. The symptoms gradually subsided, cough and change of voice, especially the latter, remained for some time after the other symptoms had departed.

Dr. Evanson naturally thinks it unsatisfactory that no foreign substance was detected by the operation. The mother of the child was sufficiently obliging to remove all difficulty, by producing afterwards a piece of fish-bone, which she *said* she discovered in the wound on the fourth night after the operation. Dr. Evanson hints a suspicion of the tale, which most of our readers will probably be well inclined to indulge. Whatever the real nature of the case may have been, the character of the symptoms, their history, and the good effects of tracheotomy, deserve to be studied and recorded.

Dr. Maunsel related to his friend, Dr. Evanson, a fact which may be usefully appended to the preceding.

"A healthy child, about two years old, was suddenly seized with a paroxysm of coughing, followed by stridulous breathing, and so much dyspnœa, as appeared to threaten instant suffocation. The case was treated by a medical man as one of croup, which, in fact, it closely resembled. Relief appeared to follow the treatment, but similar paroxysms recurred from day to day, and became on each repetition more alarming. About ten days after the first attack, Dr. M. saw the child in the absence of the medical attendant. It was much debilitated; the breathing remained permanently stridulous, and paroxysms threatening suffocation, followed upon the least excitement. As the protraction of the disease threw doubt upon the supposition originally entertained of its nature, a more accurate inquiry was instituted respecting the circumstances attending its commencement; when it was discovered, that at the moment of the first seizure, the child had been sitting upon the knee of one of the servants, while the latter was dining upon fish. From a consideration of these circumstances, Dr. M. imagined that the symptoms might be accounted for by the presence of a portion of fish bone in the trachea, and suggested the performance of bronchotomy. As the case was enveloped in a good deal of obscurity, the operation was not, at first, acceded to. Eventually, however, it was performed about three weeks after the accident, but the child was so much weakened, that it expired immediately after the operation. A portion of herring bone was found lodged in the ventricle of the larynx."

These cases are calculated to read an useful lesson to the surgeon or physician.

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## XXII. CASE IN WHICH HUMAN TEETH FORMED THE NUCLEI OF URINARY CALCULI.

This case, contained in our Dublin contemporary, adds another to the list of extraordinary instances, in which foreign substances, of the most anomalous description, have been found in the female bladder, uterus, or vagina.

*Case.* Mary MacMahon, a labouring woman, was admitted into the County of Clare Infirmary on the 9th Oct. 1833, labouring under the symptoms of stone in the bladder. On sounding her, a calculus could be distinctly felt, and seemed of considerable size. According to her statement, the stone had approached once or twice so closely to the orifice that she had been enabled to scratch some portions off with her finger.

The symptoms appeared to have commenced for nearly four months prior to her application.

The operation having been determined on, a small pair of forceps was introduced, with which, after much trouble, the calculus was seized; but having broken, on account of its brittleness, it again slipped away from the instrument. The forceps having been once more introduced, the calculus was with great difficulty secured between its blades. An effort was now made to bring it through the urethra, but after a long trial, it altogether failed. Finding that the stone could not be got thus to pass, a small incision, (about a quarter of an inch long) was made, with a blunt

pointed bistoury, in the anterior part of the urethra, as being the most convenient direction. On this being done, the calculus was readily extracted. It was of an oval shape, with its sides much flattened, and one of them smooth as if it rubbed against another stone. From the opposite side appeared a projection about a quarter of an inch in length, presenting a striking resemblance to a human tooth, with the fang turned outwards. On clearing away the calculus matter from around this projecting body, it proved to be indeed a human tooth; one of the molars possessed of a perfect covering of enamel.

During the operation the patient fainted, and continued so weak that it was necessary to remove her immediately to bed. A full opiate was administered and she remained tranquil for a few hours; at the end of this time, however, another paroxysm of pain came on, and after much suffering another calculus came away. From this time she got complete and permanent relief. This 2d calculus was of an egg shape, somewhat larger than the first, and quite smooth. On examination, it had a glossy appearance at one end, which, on being scraped, presented the extremity of another tooth."

No unpleasant symptoms succeeded, and the patient was restored to health, with the power of retaining her urine perfectly.

She denied all knowledge of the manner in which the teeth could have found admission to the bladder. But she threw out something like a tub to the whale, for she stated that they had been so loosened by mercury, that they fell from her mouth, and dropped into the bed while she slept. The inference she wished to be drawn from this very probable story was, doubtless, that one of the missing molars had found its way through the meatus urinarius in the same witching hour of night. We fancy that one satisfactory explanation will apply to the great majority of these cases.

## XXIII. MR. WARDROP ON THE INJURIOUS EFFECTS OF BLEEDING.*

Some remarks on this subject are contained in a lecture on surgery, published by Mr. Wardrop in the Lancet. It is one of much consequence to all practitioners, as occasions constantly occur, in which erroneous judgment may produce very serious results.

Mr. Wardrop remarks that bleeding, *immediately after an injury*, is frequently unnecessarily and perniciously employed. It is, indeed, absurd to see practitioners so devoid of common sense as to bleed a man because he is run over, or because he has met with any kind of accident. There are many injuries for which depletion, early or late, is, under common circumstances, hurtful. All the constitutional vigour of the individual is required to complete the work of reparation. Such are some fractures of the spine—lacerated wounds, and so on. Even in cases of injury of the head, of the chest, of the abdomen, cases in which much depletion is often subsequently necessary, the condition of the patient determines the justice of the measure. How foolish, how criminal it is, to open the veins of a patient collapsed from a blow on the cranium or the belly, it would be a waste of words to shew. We remember the instance of a boy, who was thrown from a horse against a lamp-post. He was picked up insensible, and carried to a neighbouring surgeon. He bled him, and forwarded him on to a hospital. Immediately after his admission he died. The vena cava inferior was found to have been ruptured.

Mr. Wardrop relates a case of an interesting character.

*Case.* The servant of a medical society getting a fall at the time of one of the meetings, and whilst still in a state of insensibility, was bled. It was at least fifteen months after that bleeding before she recovered her strength, although it was very moderate in quantity.

* Lancet, Feb. 22d, 1834.

This is an extreme instance, and probably the "very moderate" bleeding must not be exclusively blamed for the long-continued weakness.

Mr. Wardrop remarks that it is not till reaction has occurred that blood-letting should be had recourse to after severe injuries, and that even then it should be used with circumspection. This is a good general principle, and one that the best surgeons commonly pursue. But certainly it does not express the whole truth. There are some cases of injury of the head in which reaction can scarcely be said to occur, but yet in which depletion is useful and necessary. In some instances, also, of severe wounds or contusions of the thorax or abdomen, it is wise to anticipate reaction, and endeavour to prevent inflammation. Practice of this sort requires too nice and too exact a discrimination of circumstances to permit precise directions to be given.

Mr. Wardrop indulges in some reflections on the principles which should guide us in bleeding during an apoplectic fit.

He believes it has been frequently carried to an unwarrantable and even to a fatal extent.

"In proportion," says Mr. Wardrop, "to the violence of an apoplectic shock, so are the powers of life diminished; and hence, if the quantity of blood abstracted be regulated by the severity of the symptoms, in like proportion will it be hurtful by still farther diminishing the vital powers. When a person is in a state of insensibility from an apoplectic fit, those around are too apt to urge the necessity of bleeding, conceiving that the loss of blood will cure the disease in the head, of which the fit is merely an effect or symptom.

*Case.* A surgeon was sent for to see a patient, who had fallen down suddenly in an apoplectic fit; he immediately opened a vein, and after abstracting only a few ounces of blood, the pulse sank. When he visited this patient, several hours afterwards, he found the powers of life so feeble that he ordered him cordials, by which the action of the heart and arteries began to revive. Soon after this, however, another surgeon was called in, and he repeated the venesection, after which the patient sunk rapidly, and in a few hours expired."

Although there is considerable truth in these remarks, we think that they must not be received without caution. It is certainly absurd to bleed a man largely, *merely* because the apoplectic symptoms are severe. But there can be no question whatever that bleeding is proper, and even advantageous, in cases where the greatest apparent oppression exists. Take a case of sanguineous apoplexy, and suppose the extravasation considerable, or what is better, suppose it going on. Is the surgeon or physician to wait till the patient rallies — till the pulse acquires force? If he does, that patient is surely lost. Mr. Wardrop may reply, that under such circumstances the practice signifies comparatively little, the chance of recovery being next to nothing. But in less extreme cases the principle holds, and frequently the boldest practitioner is the best.

The instance adduced by Mr. Wardrop is unsatisfactory, because imperfect. We are not informed of the real condition of the parts within the cranium. There might have been copious extravasation or extensive serous effusion. The mere revival of the action of the heart by the agency of stimulants is a point of little consequence, as they frequently produce this temporary good effect at a time when they are a source of danger and destruction. This is observed in a marked degree in cases of injury of the head. We have seen the pulse rise under cordials, when subsequent dissection has shewn that they *must* have been injurious.

We fear there is a risk of practitioners running into an error the reverse of that of bleeding for an injury. We think we have observed within these last few years, a disposition to stimulate for it. Of the two mistakes we really think the former the less dangerous, for, after all, few would die of a moderate bleeding who had not received an amount of mischief that must necessarily be mortal, whereas a com-

paratively trifling accident may, when assisted by injudicious stimulation, give rise to fatal inflammatory consequences.

"There are cases of plethora or congestion in the brain, producing a sudden loss of the intellectual powers and convulsions, in which too much blood can scarcely be removed to save life; but in such cases the pulse is strong, usually acquiring vigour whilst the blood is flowing from the vein.

*Case.* A general officer, of a full plethoric habit, and who had suffered occasionally from gout, had, in consequence of a slight pain in the great-toe, taken a brisk purgative, and whilst walking on the following day, which happened to be unusually cold, he felt a chill, suddenly became giddy, and fell down in the street, senseless and motionless. I found him in this state, but his pulse, though strong, was little changed. I immediately opened a vein in the arm, and the blood flowed freely through a large orifice; at first the pulse gradually acquired strength, and increased in frequency, but was not subdued until upwards of forty ounces of blood were abstracted, when he immediately became sensible to things around him. In this state he was removed to his own house, and in a very few hours the vigour of the heart and arteries revived, accompanied by uneasy feelings in the head, when about the same quantity of blood was taken away as on the former occasion. These depletions, along with a continuance of an antiphlogistic regimen, were the means of producing permanent relief."

Mr. W. observes that in cases where organic changes in the brain's structure exist, and when the apoplectic attack is caused by some vessel of the diseased part giving way, bleeding is of no avail. What is?

Mr. Wardrop's observations on blood-letting in *irregular distributions of blood* may be extracted.

"Bleeding will also be found more or less injurious when had recourse to in cases where there is merely an irregular distribution of the blood, or where there is an undue quantity in a particular part, without any increase in the quantity of the whole mass. Such cases are quite different in their pathological characters, both from those of congestion and of inflammation, and these three different conditions of an organ ought to be accurately distinguished.

In *congestion*, the quantity of the sanguineous fluid is increased, or the vessels are in a state of plethora. In an *inflamed part*, a change of structure is going on, so that if you compare an organ in a state of congestion with one which is inflamed, and macerate each in water, the blood of the first is washed away, leaving the natural structure unchanged, whilst in the inflamed organ, besides an increased quantity of blood, a change has been going on in the structure of the organ, more particularly an effusion of a sero-albuminous or puriform fluid, into the cellular membrane. Where there is an *irregular distribution of the blood*, and an undue quantity sent to a particular part, there is a corresponding diminution of the blood in some other parts, and it is in such cases where the abstraction of blood is always useless and sometimes injurious.

We have examples of these irregular distributions of blood in affections of the head and chest. Persons suffering from bilious and aguish headachs, as they are usually called, frequently have a flushed countenance, and an increased action of some of the branches of the external carotid artery; but they are not accompanied by any of those changes in the pulse which indicate the use of blood-letting, and are marked by symptoms showing a diminution of blood in some other parts of the body, and more particularly in the limbs, by a painful sense of coldness in the feet.

Persons who have often had bilious headachs, accompanied with a flushed face, and for which bleeding has been ineffectually tried, may, however, also have feelings of uneasiness in the head of a different character, and of that description wherein bleeding is highly beneficial. I have known several serious practical errors committed from the surgeon not being aware of this circumstance, and treating a headach from congestion of blood like an ordinary sympathetic headach. And patients

themselves, subject to headachs from derangement in their digestive organs, are apt to attribute every uneasiness in the head which they may at any time experience, to the same cause.

*Case.*—The late Dr. Baillie frequently suffered from headachs connected with chylopoietic derangement; and on several occasions they were so severe, that he had been induced to try the effect of cupping, from which, however, he did not experience the smallest benefit. Perceiving one day some spectra or images floating before his eyes, accompanied with uneasy feelings in the head, he asked my opinion; and considering that these symptoms were of a plethoric character, and indicated congestion within the head, I recommended the abstraction of some blood. To this he at first objected, from the inutility of former bleedings; but on representing to him the difference in the character of the present symptoms, leeches were applied behind the ear, which gave such relief as to induce him to repeat their application on the following day, by which treatment the spectra disappeared, and he was perfectly relieved from all uneasy feelings in the head.

*Case.*—A gentleman, who had often suffered from what he called 'blind headachs' during forty years of his life, consulted the surgeon who lived in his vicinity, relative to some feelings in the head. Considering these symptoms to be unconnected with the 'blind headachs,' he advised him to be bled at the arm, which advice, however, was not followed. He now consulted a physician, who recommended to him the use of the sulphate of iron; and another physician, whom he afterwards consulted, recommended tonics, wine, and a generous diet. Having pursued this plan, and while he was on a visit to London some weeks afterwards, I was hastily sent for to see him, when I found that one side had become paralytic, with every symptom of congestion in the brain, and for the treatment of which he required repeated blood-letting."

We conceive that Mr. Wardrop's remarks upon this head are not altogether free from difficulty. He distinguishes inflammatory action from irregular distribution of blood by the presence of effusion in the former. But this is a consequence rather than a concomitant, and, in the instance of the head, a very serious if not fatal consequence. There are many cases of undoubted phrenitis in which the most active treatment is necessary, though happily no effusion has occurred.

Mr. Wardrop presents no instances of headach of the kind he has mentioned, unless his reference to "bilious" and to "aguish" headach be considered such. But are these unexceptionable? Is it certain that in these cases there *is* preternatural determination of blood to the head? A "bilious" headach will depend on some indigestible substance in the stomach—an emetic removes this and the headach is relieved, as if by magic.

In the case of Dr. Baillie it is probable that irregular distribution of blood did really occur when benefit was derived from the abstraction of blood. The headach, in his instance, was probably not inflammatory. Mr. W. may reply it was owing to congestion. It is as probable that it was due to irregular sanguineous distribution.

The lecture of Mr. Wardrop is practically interesting, and therefore we have selected these portions for notice. Our readers will agree with us in looking for more observations on disease, from the same observant and experienced surgeon.

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## XXIV. Complication of Cerebral Affection with Jaundice.*

In a preceding part of this Journal will be found a notice of some cases of jaundice complicated with coma, related originally by Dr. Griffin, in the Dublin Journal. Dr. C. J. B. Aldis, a zealous and intelligent young physician, has forwarded an instance of a similar description to the Medical Gazette. It occurred in the public practice of our

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* Medical Gazette, March 1, 1834.

friend Dr. Wilson, one of the physicians of St. George's Hospital.

*Case.*—A girl, aged 16, admitted into that institution, on September 18th, of last year. The skin was suffused with bile—pain in the hepatic regions and on inspiration—sick and vomits frequently—bad taste in the mouth—thirst—tongue clean—bowels open—urine scanty and high coloured—catamenia irregular. Her spirits are very low, and she has been crying nearly every day—is very drowsy—head confused—and cannot answer well for herself. She has been ill with jaundice for a fortnight.

On the 19th she was stated to be insensible—the breathing was laborious. She had brought up much blood, at different times that morning.

At 2, p. m. she died.

*Sectio.* The dura mater was deeply stained with yellow; also the glandulæ pacchioniæ. The convolutions of the brain were flattened. The lateral sinuses were filled with blood. *No effusion, nor undue vascularity, in the substance of the brain.* The inner lining membrane of the upper part of the trachea very vascular. A large earthy concretion, about the size of a chesnut, in the bronchial gland, at the bifurcation of the trachea. The liver soft, flaccid, and unusually small; its substance in parts stained with bile; there was no fluid bile in it. The ductus communis choledochus not obstructed, but larger than usual. The left kidney of a bright yellow colour; the right not so yellow. Heart small. Inner coat and semilunar valves of aorta very yellow. Inner membrane of the stomach granulated, and suffused with bile. Spleen healthy. Pancreas not stained.

The following brief remarks are appended by Dr. Aldis.

"In this case there was nothing in the brain to account for the violent head symptoms during life, which appear to have depended on a deranged state of the liver, just as they sometimes coincide with a morbid condition of the kidneys, or the mucous follicles of the bowels, in common continued fever. It is worthy of remark, that Mr. Twining, in his Clinical Illustrations of the more important Diseases of Bengal, states, page 258, 'in some cases I have known robust patients die with symptoms of oppressed brain, within thirty-six hours after the sudden appearance of intense jaundice; for the accession of which last named disease no cause could be assigned.'"

The case is not exactly one of coma, but rather of that oppression about the head, which is constantly observed in fever, and which probably depends on altered conditions of its circulation, the precursors only of effusion.

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## XXV. FLAVOUR AND ODOUR.

Various substances, after exciting the sense of touch on the fauces, and that of taste upon the tongue, are capable of producing a third impression, which is popularly referred to the palate, but is really felt upon the sentient membrane of the nostrils: the fume of certain kinds of food ascends into the cavities of the nose, and produces this third and distinct sensation: in administering medicine to children, it is well known that the greater part of what is disagreeable in its flavour may be avoided, by closing the nostrils while the draught is swallowed: and by repeating this experiment upon various articles of food, it is easy to ascertain how much of their flavour depends upon one sense, and how much is appreciated by the other. Hence it is that the senses of taste and smell have been often compared as having a resemblance, the odour of many substances being supposed to resemble their flavour; while the fact is, that the flavour of such bodies consist in their scent, and that the two impressions, which are compared, are one and the same.—*Mayo's Physiology, 3d Edition.*

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II.

## SPIRIT OF THE FOREIGN PERIODICALS, &c.

I. DE FISTULIS COLLI CONGENITIS, ADJECTA FISSURARUM BRANCHIALIUM IN MAMMALIBUS, AVIBUSQUE HISTORIA SUCCINCTA.—Berolini, 1832.

M. ASCHERSON, the author of this memoir, has called the attention of his medical brethren to a curious congenital anomaly, or "vitium formationis," which he has observed in several persons. The number of cases altogether amounts to eleven; and most of them occurred in female children, of a scrofulous, or at least of a lymphatic constitution. The authenticity of most is guaranteed by the testimony of that able physiologist Rudolphi. The following may be given as a brief description of the disease:—On the anterior and lateral part of the neck there is observed a fistulous opening, which is situated generally in that triangular hollow between the clavicle and the two points of insertion of the sterno-mastoideus; but sometimes it is at the inner edge of this muscle. It is much more frequently found on the right than on the left side; and if there should happen to be one on either side, that on the right is always larger and placed somewhat higher up than the other one. The aperture is invariably very narrow; occasionally scarcely visible, but at other times it is surrounded with a red circle, or it may project like a papilla. It generally follows the movements of the pharynx in deglutition, and when this is the case, we observe a transverse furrow, at the bottom of which is situated the fistulous opening. If a probe be introduced, it may perhaps be pushed forwards a little way, but in most of the cases it is stopped very soon, in consequence of the sinuosity of the canal. In one case, fluid injected at the outer opening, passed into the pharynx, and the patient was sensible of its taste; and in another, the attempts made to cure the fistula in this way were followed by disagreeable consequences, such as swelling of the neck, smarting pain, and the sensation as if a foreign body was sticking in the pharynx. On no occasion was any air ever observed to escape from the opening, even when the effort of expiration was strong, while the mouth and nostrils were kept closed. The discharge from the fistula was sometimes viscid and clear, and at other times, more of a purulent appearance; and it was remarked that in the latter case the quantity of the discharge was always more profuse. Although this disease be congenital, it may increase after birth beyond its original extent. Eight of the cases seen by Dr. Ascherson occurred in females, and three in males. These fistulæ now described have some analogy with the tracheal fistulæ recently discovered and explained by M. Dzondi; but the origin and the anatomical characters of the two are very different. In order that we may compare them, we have extracted the following remarks from Dzondi's narrative.

"At the anterior part of the neck, about the middle of the concave edge of the thyroid cartilage, there is found a small round opening, of about a line in diameter; its edges are neither red, tumefied, nor surrounded with any fleshy rim. It is not painful on being touched; and when firmly compressed, several drops of a puriform fluid may be made to flow out. A probe cannot be pushed very deep, in consequence of the winding track of the fistula, and on no occasion can it be introduced into the trachea, although a few bubbles of air almost always escape upon any forcible expiration."

These tracheal fistulæ may be associated, or occur in connexion with other congenital anomalies or irregularities of formation; especially with those which are denominated "monstrosities from asymphysis," that is, from an incomplete junction of the two lateral halves of the body. We cannot, however, take the same view of those described by

M. Ascherson, because they are not situated in the median line of the body; and as they have no communication with the air-passages, we must necessarily infer that their origin is not similar. He is of opinion that they should be regarded as proceeding from some anomaly or aberration of the nisus formations, congeneral with those which cause an arrest of the development of the fœtus, during one of those phases which it successively passes through, before it reaches its perfect state. To one of these transition forms belong the branchial fistulæ discovered by Rathke first in the young of the pig, horse, hen, water-snake, (coluber natrix,) and lizard, and afterwards in a human embryo, about 7 or 8 weeks old. These fistulæ or tubes consist in from six to eight apertures, arranged symmetrically on either side of the neck, opening into the pharynx, covered externally with a sort of operculum, and exhibiting on their inner surface several arched lamellæ. Rathke compares these apertures with the branchial apertures of the shark; and a beautiful confirmation of this opinion may be derived from the identity which exists in the vascular arrangements of fishes and of the early chick, as clearly made out and described by M. Huschke of Dresden. This anatomist publicly demonstrated that the aorta of the young chick gives off six branches, which pass on to the inner surface of the branchial arches, (or those lamellæ which are considered as rudimentary branchiæ,) and which afterwards communicate with, and terminate in, the descending aorta. Bäer has verified the existence of these branchial apertures in the fœtal dog and rabbit; and his observations have been confirmed by Burdach, Muller, Allan Thompson, and Becker. M. Rudolphi mentions having seen at Stralsund an infant, in whom the closing up of a fistula of this sort, brought on aphonia, epileptic convulsions, and other alarming symptoms, which gave way only when the ulcer was re-established, and the discharge permitted to flow. In one of the cases related by Dzondi, the healing of the fistulous opening was followed by a train of evils which finally proved fatal.

## II. CASES OF AGUE, TREATED WITH THE SALICINE.

CASE 1. A youth, 14 years of age, after exposure to cold, and suffering from want of proper food, was seized with a tertian fever, whose attacks regularly came on at three o'clock in the afternoon. A vomit was first prescribed to clear the stomach; and then repeated doses of a mixture containing sal ammoniac and tartrate of antimony, for the purpose of acting on the bowels and of cleansing the tongue, which was loaded with a thick crust. The use of the salicine was then commenced, and 24 grains were given during the intermission; but the paroxysm returned, and the same dose was repeated during the second intermission: but as no perceptible effects had been obtained from it, recourse was had to the quinine, of which only eight grains were taken during the third intermission. The disease was checked from that time, and there was not afterwards even the slightest relapse of the fever; a circumstance which, it must be confessed, is by no means very common under any treatment. Whether any credit is due to the previous use of the salicine it is not easy to determine.

*Case* 2. An aged woman, who had long been a martyr to the gout, had suffered from three paroxysms of tertian fever, when Dr. Busch was called to her assistance. The cold stage was short, but the hot was tedious, and only towards the evening of the day, yielded to a gentle perspiration coming on at that time. During the intermissions, her health seemed moderately good; the use, therefore, of tonics, was forthwith commenced. The cinchonine in doses of a grain and a half at a time was ordered, so that in all 15 grains were taken in 24 hours. The following paroxysm was not abated in severity; and the cold stage was even more violent, and the sweating was more copious than it had been heretofore. The same quantity of the medicine was repeated, and the fever now seemed to be checked; and this was really the case during the following twelve days, after which another paroxysm came on.

It is right to mention that the patient, contrary to advice, had discontinued the use of the cinchonine. Recourse was had this time to the salicine, of which five grains were administered every two hours, so that during the intermission forty grains in all were taken. No paroxysm came on, and the patient felt within herself quite comfortably, complaining only of a mist before her eyes. Although the medicine was not repeated, there was no relapse of the disease.

*Case* 3. A strong man, 52 years of age, who had suffered from tertian ague on the preceding year, was placed under the care of Dr. B. in consequence of a second attack. The cold stage was severe, the hot one moderately so, and the sweating was profuse. The tongue was coated with a thick yellow crust, and there were present the usual symptoms of a disordered stomach. A solution of the sal ammoniac and tartrate of antimony elicited copious evacuations upwards and downwards; and when the tongue became clean, four grains of the salicine were given every two hours: 36 grains were thus taken during the intermission. The following paroxysm was exceedingly mild, being marked only by a slight chill, and feelings of numbness in the limbs; but even these mild symptoms speedily ceased. The same quantity of the medicine was repeated only once more, and yet the patient remained quite free from any relapse.

*Case* 4. A man, 48 years of age, who had laboured under tertian fever in 1831, had another attack in the Spring of the following year, and was this time treated by Dr. Busch. After the primæ viæ had been well cleansed by vomits and aperients, the salicine was ordered in doses of five grains, so that eight doses were taken during the intermission. The expected paroxysm was arrested, but the patient complained of feeling much worse than he had done when the fever was allowed to come on; for his head was painful and confused, and strange figures and sparks of light kept passing before his eyes; and his wife reported, that he had been quite delirious during the night. In the morning he was very comfortable. The medicine was not however discontinued, and none of the disagreeable symptoms returned, until the afternoon when the paroxysm was again looked for;—then the cerebral disturbance was renewed, but it did not continue so long, nor were there any symptoms of pyrexia present, such as shivering, heat, or sweating. For other two days, the salicine was taken in the same doses as before; but then, contrary to all expectation, a severe paroxysm came on, and the shivering stage was remarked to be particularly violent. At this period the quantity of salicine which had been taken was 120 grains; and as this was deemed a fair trial, the quinine was substituted; it was ordered in doses of a grain and a half every three or four hours, during the intermission. From this time all threatenings of aguish symptoms entirely ceased.

Our readers will have no difficulty in drawing the legitimate conclusions from the preceding cases of genuine and well-marked ague, as to the comparative efficacy of the salicine and quinine. It may be useful to adduce an example or two, where the former medicine was used in the masked agues, or, as the foreigners term them "larvatæ intermittentes."

*Case* 5. A servant girl, 25 years of age, who for two years successively had suffered from very obstinate attacks of ague, consulted Dr. B. in the Summer of the year 1831.

Every second evening for some time past she was seized with violent headache, which continued with more or less severity during the night, terminating towards morning by a gentle perspiration. At no time was there any shivering or feeling of febrile heat, but the stomach was disordered, and the patient complained of general languor and uneasiness. An emetic and purgative were first ordered, and then the use of the salicine, in doses of two grains every four hours was commenced, and forthwith the head-ach entirely ceased.

*Case* 6. A woman, 45 years of age, had had an attack of tertian fever in 1831. In the Summer of the following year, she suffered from a severe bilious disorder, and this left behind it a periodic stomach affection, marked by a sense of distressing pressure gradually amounting to pain, in the region of the stomach; this, after continuing for some hours, abated and ceased. Dr. B. suspecting that this was a case of masked ague, ordered the salicine; and its use was speedily followed by the complete removal of every symptom.

In addition to several other such cases as those now related, Dr. Busch alludes to the good effects which may be derived from salicine, in many forms of dyspepsia, in old catarrhs, when the bronchial discharge is very profuse, in fluor albus, and gleet, and also in some obstinate cases of hooping-cough; one particularly is mentioned of a child who had suffered from it for ten weeks, the salicine was ordered in doses of two grains repeated every three hours, and in the course of six days the little patient was perfectly ridded of all cough. —*Hufeland's Journal.*

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III. CASE IN WHICH THE POISON OF THE ROT (OF SHEEP) WAS COMMUNICATED TO A MAN.

A shepherd, 28 years of age, and of a healthy constitution, had been engaged in skinning the carcases of two diseased sheep, which had died of the rot, and in which the spleens were found much enlarged, easily friable, and of a blackish-brown colour. In a day or two afterwards, the man observed that several heat-bladders, (as he called them) which had existed for some time on his left fore-arm, had become more inflamed and painful, and he suspected that the blood of the diseased animals had infected them. In the course of the night he was restless and feverish, and could not sleep; his limbs ached as if he had been beaten all over, and then a shivering, succeeded by heats and intense headach, came on. Next morning the vesicles had become larger, and the whole arm was swollen, red, and painful; the pain was of a tearing and burning nature. Large linseed poultices were applied round the limb; but these had been on scarcely half an hour before the vesicles became quite black; and as they continued to increase in size, and the arm to become more painful, the hot poultices were exchanged for a sour dough or paste, to which about one-eighth of mustard flour and vinegar had been added. This application seemed to answer very well, for the pain speedily diminished, and the black gangrenous spots shewed no tendency to enlarge. The pulse at this time was 110, full and soft, the eyes were suffused, and the skin rather hot. On the inner side of the affected fore-arm, there were three gangrenous spots, in size varying from that of a penny to that of a sixpence; the arm was still much swollen even up to the axilla, the whole of the fore-arm was of a deep red colour, and from it there extended upwards to the shoulder, two broad red lines, which terminated above in enlarged axillary glands. Besides these local symptoms the breathing was tightened and oppressed, and the symptoms of general pyrexia continued. The mustard paste which had been applied to the fore-arm, as it probably kept up a good deal of irritation was now left off, and the unguentum elemi applied to the gangrenous spots. The constitutional treatment had consisted chiefly of cordial and antiseptic remedies; the diluted sulphuric acid was freely given in water as the common beverage; spirituous and ætherial medicines in small and repeated doses were frequently administered; and the action of the bowels was solicited by mild aperients. The eschars soon began to separate, and the tension and redness of the limb to subside; and now the dressings were made warmer by the additions of sulphur and volatile oils. In the course of eight or ten days he was so much recovered that he was able to resume his labours in the fields. There was a threatening of relapse, but by using proper measures in time, the progress of the mischief

was arrested. The quinine and sulphuric acid fully re-established his health.

*Remarks.* It appears from the preceding, as well as from many other similar cases on record, that the action of most of the putrid animal poisons is decidedly depressing and of a septic tendency. The patient at first experiences great languor, and weakness in the limbs, headach, and a sensation of burning pain in the eyes, anxiety at the precordia, sickness and tension of the abdomen; and as these symptoms continue, every thing indicates a typhoid character. The correctness of this view is confirmed by the result of the remedies in the present case; we have seen that the relaxing poultices which were applied at first, appeared to increase, rather than to abate the local mischief; whereas the stimulus of the mustard and vinegar was evidently serviceable. The utility of the internal remedies used leads to a similar conclusion. A strict antiphlogistic treatment in such cases, we consider to be decidedly injurious; we may indeed get rid of a portion of the unhealthy blood in this way, but we cannot correct its abnormal qualities; and no wonder, for it has become positively and essentially infected, and poisoned; and one great indication of cure must of a necessity be, to counteract the operation of the offending cause.—*Hufeland's Journal.*

Let our readers compare the last remark or two, with the reflections in M. Roche's Memoir, which is published in the present number.—Ed.

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## IV. On the Use of the Sulphate of Cadmium against Specks of the Cornea.

Many years ago Graefe and Rosenbaum adduced several cases in which this new medicine had been used, with apparently good effects, in promoting the absorption of specks and opacities of the cornea. Dr. Tott of Mecklenburgh has lately repeated their experiments, and the results have been quite favourable to the report of his predecessors.

*Case* 1. A boy, 14 years of age, had a small spark of iron driven into his left eye; a violent inflammation of the cornea and conjunctiva was the consequence. Very active depletory measures were used, and when the inflammation was subdued, it was found that nearly one-half of the cornea was rendered hazy and obscure by a blueish coloured opacity, which much impeded the sight. The ung. hyd., nitrico-oxyd. sulphate of zinc in the form of a collyrium, walnut oil, a perpetual blister behind the ear, were all tried without effect; the sulphate of cadmium was then used in the proportion of one grain of the salt to two ounces of water; 8 or 10 drops to be distilled into the affected eye thrice a day. In four weeks the opacity had vanished, and the vision was completely restored.

*Case* 2. A young girl had suffered from conjunctivitis and cornitis for six weeks, when she was brought to Dr. Tott.

A partial exudation of lymph into the texture of the cornea, had already taken place. The sulphate of cadmium was was used in the same manner as we have described in the preceding case, and with equally satisfactory success.

*Case* 3. A young boy, affected with a scrofulous eruption on the face, and with inflammation of the left eye, was treated with antimonials, dulcamara, conium, and the result was the cure of both diseases. Unfortunately however, a blueish white opacity remained on the cornea after almost all traces of opthalmia had disappeared. Blisters behind the ears, zinc and lead collyria, with the internal use of mercurial and antimonial medicines were expected to effect the removal of the speck; but in vain. Many other remedies were then tried, but all fruitlessly, and at last Dr. Tott had recourse to the sulphate of cadmium; in eight days the opacity had sensibly diminished, and in five weeks more it had entirely vanished.

It is important to state, that the scrofulous affection of the face remained behind, so that we cannot well consider the malady of the eye as proceeding from the constitutional taint; at all events, the present case shews that the sulphate of cadmium cured it, although occurring in an unhealthy subject.—*Graefe's Journal.*

[The remedy proposed by our German brother deserves trial in this country.—ED.]

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## V. CASES ILLUSTRATIVE OF THE EFFICACY OF CONCENTRATED CHERRY LAUREL WATER IN NEURALGIA.

CASE 1. *Irregular Neuralgia of the Neck.*—A woman, 38 years of age, who had been labouring under violent meningitis (for which she was largely and repeatedly bled), was suddenly, during the decline of the disease, affected with a severe pain on the posterior and lateral parts of the neck; it returned at irregular intervals of time, but always with extreme violence; and the usual duration of each paroxysm was about two hours. The affected part did not exhibit any visible marks of disease, except a slight redness; but yet the gentlest pressure caused intolerable agony. Bleeding, leeches, acetate of morphia, taken internally and applied externally, hyosciamus with valerian and the oxyde of zinc, sinapisms to the feet, and a host of other remedies, had all been tried without effect.

Dr. Broglia was at this time first called to the patient; he ordered the pained part to be well wetted every second hour with a wash composed of three drachms of concentrated cherry laurel leaves water, and three ounces of rose water, the part to be kept constantly covered with a moistened compress. Almost immediate relief was experienced; and a complete cure obtained in three days.

CASE 2. *Femoro-popliteal Neuralgia.* A young female, after exposure to cold, when heated, was almost instantaneously seized with an agonizing pain in the knee-joint, extending for a few inches up the thigh and down the leg. The pain at first severe became gradually most excruciating, and after lasting for about two hours, it abated; only however to return at irregular periods, with its former violence. The general health was good. Dr. B. saw her on the third day after the seizure, and ordered a venesection and an active purgative as preliminaries. She experienced relief from these measures, but they did not prevent the return of the paroxysms; the internal use of sudorifics, turpentine, &c. and the operation of acupuncturation altogether failed; recourse was therefore had to the external application of the cherry laurel water, as in the preceding cases, and a complete cure followed in the course of a few days.

CASE 3. *Sciatic Neuralgia.*—A lady, during her convalescence from an inflammatory affection of the spinal cord, which required very active depletion, began to experience a severe pain about the right knee, darting upwards to the hip, and also down the leg. Friction, with different anodyne liniments, and the extract of henbane were employed without success. On the evening of the eighth day from the date of the seizure, the laurel water was first used, and its effects were speedily, and permanently also, fortunate.

The next case mentioned is that of a lady 32 years of age, who was suffering from severe irregular sub-orbital neuralgia, which had resisted leeching, quinine, belladonna, &c., but which quickly yielded to the laurel water wash.

The sixth case occurred in a young man who was labouring under irregular remittent neuralgia of the left scapula and shoulder. All the usual remedies, as iron, bark, colchicum, antispamodics, acupuncturation, &c. having utterly failed, Dr. B. then used his wash, and we are told, with the happiest effects.

The Doctor is candid enough to admit, that the laurel water lotion has failed in several cases, which have been cured subsequently by blisters; and it is necessary to observe, that in scarcely

any of the successful examples, had the disease existed long.

M. Roux published a paper in the Bullétin Générale de Thérapeutique, for 1832, strongly recommending, in neuralgia, the external use of the following lotion.—Take of distilled cherry-laurel water four ounces—sulphuric æther, one ounce, and of extract of belladonna, two drachms. Mix.—*Annali Universali di Medicina.*

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## VI. On the Development of the Thymus Gland in man, and in other Mammiferous Animals.

There is no subject of physiological research more curious or interesting, than that of the mode and period of the formation of the different organs in living bodies. It was at one time believed that the "tout ensemble," or the whole, of the organized fabric was cotemporaneously and simultaneously evolved, during the time of the being's residence in its embryo and fœtal abode; but such is not the case, and it has been proved beyond all doubt, by the labours of some of the most eminent anatomists of the present day, that there is a regular succession of phases, or stages of development, and that in these different stages (which become gradually more and more complex,) different organs of the body become first evolved. It is observed that some structures of the young being are peculiar to it, and become removed before birth; such is the vesicula umbilicalis—others continue unchanged up to that time, and then undergo well-known changes, for example, the umbilical vessels, the heart, ductus arteriosus, and ductus venosus; while the rest are intended to retain their congenital characters, modified, indeed, by age, as long as life endures. Now it is to the second class mentioned that we may refer the thymus gland, for it seems to attain its full development anteriorly to many other organs, being largest and most perfect in very young animals, and destined speedily to lose its importance after early infancy. In the period of adolescence, when the body is supposed to have arrived at its mature formation, the thymus gland has shrunk in all its dimensions. The object of the present enquiry, is an endeavour to trace the different states or conditions which it exhibits at the different periods of life, and to determine what the epochs or periods are when the greatest changes take place. It must be noticed here, that the laws of the development and of the decrease of the thymus gland are not uniform and alike in the different tribes of the mammiferous animals. We shall, therefore, first try to ascertain these in the human subject, and then compare them with those which belong to other creatures, included in the same zoological class.

*Evolution of the Thymus in Man.*

The earliest appearance of the gland in the human embryo is about the tenth week of its existence. Behind the upper extremity of the sternum are to be seen two small bodies, which lie separate from each other, but are joined at the lower part by cellular tissue. They increase in bulk downwards, and almost equal the size of the lungs, although at this period of embryotic life, they do not acquire, compared with the volume of the whole body, a proportional enlargement so considerable as they do at a subsequent stage. [The lungs begin to be developed in the sixth week after impregnation, and the thyroid gland in the seventh.]

Cowper is, therefore, in error when he states—"in fœtu duorum a conceptu mensium, pro mole corporis major est thymus, quam in fœtu quinque, vel sex mensium"—*Anatomy of the Human Body, Leyden*, 1739; and the error is the more inexcusable, because no traces whatever of the gland have been discovered in a two-month embryo by Burdach, Meckel, or Wrisberg. In the third month the thymus is observed as a small body, situated at the base of the heart, and enveloped in a yellowish cellular substance; it consists of two granulations, placed on the sides of the trachea, and at this period, its relative size to that of the other thoracic viscera is the most diminutive. In the fourth month it requires a considerable deve-

lopment, and extends from the base of the heart to above the region of the clavicles. The two lobes are still very apparent, and their granular texture may even be seen at this period. In the fifth month, the development of the gland is still greater, and its lateral halves become more closely joined. Wrisberg describes it in the following terms:—"It is composed of two principal lobes, and of a lobus succenturiatus; the upper lobe (upper part of the lobe?) lies over the left subclavian vein, with which it is loosely connected—the inferior lobe adheres to the pericardium, while the lobulus, which looks like a lymphatic ganglion, adheres to the right subclavian artery for the extent of about two lines. In the sixth month, the thymus sometimes rises as high as to reach the lower edge of the thyroid gland; but it has not yet been determined whether there is any juice or milky fluid contained in its substance at this time—in a seven-month fœtus, however, the author (Dr. Haugsted, of Copenhagen) was able to press out a few drops. The gland continues to increase in bulk up to the period of birth; but its specific gravity diminishes in proportion as its cellular texture is unfolded, for, compared with that of water, it was found to be, in the eighth month, 1·099, and in the ninth to be only 1·071. The average weight of the gland, at the period of birth, is between two and three drachms. It has frequently been asserted, by anatomists of high repute, that the thymus, having attained its "summum" of development at the period of birth, begins from that time to decrease gradually, until almost every vestige of it is lost in advanced age. But more exact observations shew that the gland does not lose any thing of its volume in early infancy, and, on the contrary, that it rather goes on increasing for one or two years. True it is, that in some children, we may observe an appearance as if the gland had been compressed during the movements of respiration, and this may be really the case: but still there is nothing to prevent a corresponding expansion backwards, and it will be found, on dissection, that this has generally happened. The changes which the thymus undergoes subsequently to the first or second years are of two kinds, and may be referred to two different periods. Up to the eighth or tenth year, a period which embraces the whole of the first dentition, and the early evolution of the permanent teeth, the gland appears to be nearly stationary, neither sensibly increasing nor contracting in bulk. Its cellular texture, however, becomes meanwhile more close, its milky juice less abundant, and, although still nourished by blood-vessels, the gland appears to exercise scarcely any function, and to have little or no influence on the rest of the system. Although its absolute weight remains all this time nearly unchanged, its specific weight sensibly diminishes. From 1·071, the specific gravity at birth, it was found by Dr. H. to have fallen, 14 days after birth, to 1·02·; and, in a child 10 years of age, to be nearly as low as that of water. Its dimensions, however, experience little change, and almost quite agree with our description of them in the fœtus.

We come now to the consideration of the second period, dating that from the eruption of the permanent teeth. It is at this epoch that a striking diminution of the gland begins to take place; its blood-vessels shrink—its cells, hitherto perceptible, become obliterated; it is, therefore, more solid, and less full of juice; its substance appears to be absorbed, and its lobes become thin, and more separate from each other. These changes are not very obvious till about the twelfth year, but after that, up to the sixteenth year, they are rapid and most easily traced. At this last-mentioned date, there are seldom any vestiges of the granular structure of the gland, nor of its division into lobes. Each of the lobes, separated from its fellow, has acquired the structure and colour of the thyroid gland, or rather of the spleen. The cellular substance which surrounds it, and which penetrates between the lobules, is now usually filled with fat. After the sixteenth year of age, the decrease and decay of the gland go on more slowly, but still gradually, until it becomes quite atrophied, and almost entirely obliterated. The

atrophy and wasting proceed from below upwards; hence, in the adult, the remains are generally found immediately dorsad to the upper bone of the sternum. When its substance has altogether disappeared, there is found at this place a fatty mass, inclosing some brownish-coloured corpuscles; and these are the only traces of this organ. Meckel, Burdach, and Hewson, are quite mistaken in their assertions, that the thymus is obliterated generally about the tenth or twelfth year. Dr. H. has found remains of it (imperfect indeed) at 21, and even at 28 years of age.—*Archives Gener. de Médécine.*

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## VII. On the Impediments to easy Accouchement, from some Malformation of the Fœtus.

It has been too generally admitted, that those monstrosities only which are characterized by an excess or redundancy of parts, or by extreme malposition of these, can afford any real impediment to the expulsion of the child. A few examples will prove that this affirmation is not quite correct; but it will be proper, before particularizing them, to make an illustrative remark or two.

1. If the limbs of a fœtus be so wasted away, or so imperfectly formed, that they look rather like stumps, or like turtle-flappers, than like the ordinary lengthened extremities, the fœtus is necessarily more moveable in the liquor amnii, and must, in consequence of this, be more liable to a mal-presentation.

If, in such a case as this we have supposed, we should wish to deliver the child by turning, our diagnosis of the parts which we feel may very probably be obscure and perplexing — add to which, there may be no convenient part to lay hold of. It was in an example of this kind, that Pen was obliged to apply the crotchet upon the sacrum, and Delamotte confesses that he was once exceedingly puzzled to distinguish the different parts of a monstrous fœtus.

2. In anencephalous monsters, whose spine is found open behind, the head is usually thrown backwards, and the occiput is actually concreted with the cervical vertebræ. Such a malformation must seriously impede delivery (if the fœtus be moderately large), as the whole body is thereby an unpliant mass. Fortunately, these monsters are seldom carried the full time; but, even at the eighth month, they very commonly cause a tedious and painful accouchement. It is frequently necessary to effect the delivery by turning.

There are many other deformities of the fœtus, which may be unfavourable to the naturally easy expulsion of the child; such are adherences of the limbs to each other, or to the body, or of the fœtus to the secundines (an anomaly which is frequently associated with some malformations of the fœtus itself, as eventrations, &c. and which Geoffroy St. Hilaire considers to be, indeed, the cause of the malformations), or, lastly, an abnormal agglutination, or torsion of the navel-string. The mere death of the fœtus has been very generally supposed to render a labour less easy; and indeed the ancients believed that the expulsion was effected chiefly by the efforts of the child itself. To a certain extent, we must confess, this idea is correct; for there can be little question but that the death of the fœtus, by disturbing or arresting the utero-placental circulation, must have the effect of impairing the contractility of the womb, and should putrefaction have commenced, so as to render the flesh soft, loose, and inelastic, the fœtus must act almost as a plug, filling up the passage, and merely, perhaps, protruded by the violent contractions of the expelling organ, without any power of accommodating itself to the different turnings. When the body is in this soft state, it does not well transmit the impulsion communicated by the uterus to the head, but often rather bends or folds upon itself, and thus presents an unfavourable part to the os uteri—a part which is very rarely protruded first in a living child. The analysis of obstetrical tables will be found to corroborate this statement. Out of 15,652 births, at the Hospice de la Maternité, 689 children were still-born—of these 689, 539 were in a putrid state, or in the pro-

portion of 7 to 9. The following exhibits the mode of delivery in these cases.

| | | | |
|---|---|---|---|
| Born spontaneously | by the vertex | | 514 |
| | by the hips | | |
| | face | | 3 |
| | shoulder | | 4 |
| Delivered with the forceps | vertex | | 5 |
| | forehead | | 1 |
| Delivered by turning | vertex | | 7 |
| | shoulder | | 3 |
| Delivered after craniotomy | | | 2 |
| | | | 539 |

According to this table, it appears that, in one case out of every 18 in which the fœtus was putrid, recourse had to be made to the use of the hand, or of instruments, to effect the delivery; whereas, in the labours of living children, the proportion is a great deal lower—once in about 60 cases.

To illustrate the remarks on the occasional impediments to natural accouchement, from some malformations of the fœtus, we shall adduce an example or two.

OBS. 1.—*Anencephalous Fœtus, born easily and naturally.*

A woman, 31 years of age, was admitted into the Maternity to be delivered of her fourth child. During her pregnancy, she had suffered much from cardialgia and anorexia; when admitted, the membranes had already broken and the waters freely discharged, but the labour-pains did not come on for a few hours afterwards. When the os uteri had dilated sufficiently, the presenting part of the fœtus could not be satisfactorily made out—it felt quite soft, and was at first supposed to be the genital organs, but the hips could not be traced; and, by continuing the examination, one of the arms was felt.

As the labour proceeded, the soft mass was protruded lower down, and in the middle of it, the accoucheur thought that he could feel a sort of opening, which received the extremity of the finger The expulsion was gradually effected. On examination after delivery, it was discovered that the tumour was a large reddish fungosity, which covered the entire base of the cranium, and occupied the place of the brain. The fœtus was malformed in other respects, for the anus was imperforated, and there were no traces of external genital organs; there were also only four toes on each foot.

OBS. 2.—*Anencephalous Fœtus, presenting the Shoulder—Delivery by Turning.*

A middle-aged woman, pregnant of her second child, was seized with labour-pains in the eighth month. The pains had been preceded by hœmorrhage, and when the state of the parts was ascertained by "le toucher," it was found that the placenta adhered to the os uteri: higher up a hand could be felt, and, by following this, the forearm and arm might be traced; the fœtus was still alive, but very small—the delivery was effected by turning. The fœtus was monstrous, for the cranium was altogether destitute of its vault, and, in the place of the brain, nothing was to be seen but vesicular fungosities, full of serosity. It lived for a moment or two after its expulsion, but never breathed.

*General Remarks.* It is important to observe that, independently of the more frequent mal-position of a dead, than of a living fœtus, we have oftener the necessity of employing instruments in the one case than in the other; the foregoing table shows that this happens about once in 38 dead labours, even when the presentation is quite normal. If the data of other institutions agree with those furnished from the Maternité, the conclusion of the ancients, previously alluded to, cannot be gainsayed; and, at all events, we must admit that a living fœtus is more favourable for easy expulsion than a dead one. But, in truth, the idea, although ridiculed by Petit, and by most subsequent accoucheurs, is not a whit more improbable than a favourite one of late years, we mean that which attributes the ordinary presentation of the head to an instinctive, and, in some degree, a voluntary effort or culbute of the fœtal being to direct its head foremost.

M. Paul Dubois read a very ingeni-

ous paper on this subject to the Royal Academy (of which an abstract is given in a late No. under the head of the Proceedings of the Institute,) but his reasonings are often fallacious, and many of the data on which they are founded are not correct. The great frequency of mal-presentations in cases of deformed fœtuses cannot surely be attributed to the feebleness of the instinctive and spontaneous effort of the fœtuses, but depends much more probably on their excessive mobility in the liquor of the amnion, monsters being very generally smaller, and occupying less space than healthy children. Whenever the fœtus floats about freely in the uterus at the time of labour, the chances of malpresentation are much increased; and as it is only in the latter months of natural pregnancy that the fœtus occupies nearly the whole of the cavity of the uterus, and as the head is at this period heavier, although by a very small excess of preponderance, than the rest of the body, the reason of the most common, and therefore the natural presentation is sufficiently obvious. We do not however mean to deny in toto, the occurrence of any instinctive movements of the fœtus in utero, for we believe that they do take place, and moreover that their frequency is in proportion to the inconvenience and constraint of the position in which the fœtus chances to be placed; but these movements must be blind, and obedient much more to the operation of mere gravity than to the choice or the will of the young being. Within this limit we consider its instinct to be comprehended, that it endeavours to resist any painful or disadvantageous position, say, for example, the presentation of the face, (a presentation which is much more frequent when the child is dead, than when it is alive; the proportion being as 5 to 97;) and simply because certain muscles are thereby forcibly and distressingly extended; in consequence of this the living being struggles against it.

But surely this admission does not warrant us in saying that the fœtus instinctively chooses the position most favourable to its birth; with as much propriety we may suppose that it voluntarily turns round the occiput, so as to bring it under the symphysis pubis, during the second act of parturition; all that we can fairly infer is that it strives against any position or attitude which is painful or irksome. The ingenious doctrine of M. Dubois would therefore be more correct if it simply enounced "that the child contributes by its automatic movements, to the gliding of the head towards the most depending part, which is the cervix of the womb."—*Revue Medicale.*

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VIII. TORSION OF THE ARTERIES, EMPLOYED IN AMPUTATION OF THE LEG, BY DR. CLOT BEY.

AN Arabian sailor was carried to the Marine Hospital at Alexandria, in consequence of a comminuted fracture of the left leg; the limb was amputated, and instead of using ligatures to the bleeding vessels, Clot Bey was anxious to make a trial of Amusat's proposal. He seized the arteries one by one, with a forceps, and drawing them out of their sheaths, he laid hold of them with the thumb and forefinger of his left hand above the grasp of the forceps; he then twisted them four or five times round upon their axes; and having done so replaced them. The stump was left exposed for a few minutes, in order that the operator might be satisfied, that the hæmorrhage was properly arrested; although there was no appearance of any, M. Clot confesses that he was by no means completely assured of the security of the practice which he had adopted. A tourniquet "d'attente" was therefore left around the limb. The wound was almost quite cicatrized by the fourteenth day; and there had not been once any threatening of hæmorrhage.

As far as success in one case entitles us to judge, the present must be considered highly favourable to Amusat's method.—*Ibid.*

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### IX. TREATMENT OF FRACTURED LIMBS, BY INCLOSING THEM IN PLASTER MOULDS, &c.

The eminent German surgeon Dieffenbach is in the habit of treating many cases of fracture, especially of the bones of the leg, by enveloping the limb, or only 3-4ths of its circumference, with plaster of Paris, after it has been ascertained that the fractured extremities lie in normal apposition with each other. It is of advantage to leave the anterior part of the limb exposed, as we have thereby an opportunity of watching the progress of the cure, and of applying any local remedies which may be necessary, especially when the case is one of compound fracture.

The principle of Dieffenbach's plan, that of an unmoveable apparatus round the broken limb, has been adopted by many surgeons both of ancient and of modern times. It is to that glory of French military surgery, M. Larrey, that we are chiefly indebted for its establishment in present practice. In the Russian campaign, the method was most extensively adopted, and many a limb which had been fractured by gunshot injuries, and had been thus treated, was found on the return of the poor fellows to France, to have knit together most admirably, although the dressings had never once been removed from the period of the accident.

Larrey's apparatus has also the great advantage of being composed of materials the most simple, cheap, and almost always at command; for all that is required is a quantity of linen, straw, eggs, camphorated spirits, and of cold lead lotion. The mode of its adjustment is little more complicated than the application of a common bandage; and when once secured, the member is comparatively safe, and the patient, instead of being condemned to repose for a lengthened period, may be permitted to rise on the third or fourth day; and move about on crutches. Whatever be the limb which has been fractured, there is little risk of the apparatus being disturbed, even by a long journey; and if the jolting of the carriage be painful or improper, there is nothing to prevent the simultaneous employment of suspension, as proposed by M. Sauter. But often this is not necessary; for in from 24 to 36 hours, after the apparatus has been applied, it forms a compact, coherent, and accurately fitting mould or case round the whole of the limb, so that no one part of it can be moved without the rest of the limb following the motion; thus all danger of lateral displacement is securely guarded against. It may be supposed that it is less efficacious in counteracting the shortening of the broken limb than some methods of permanent extension; this may possibly be true, but when it is stated that, out of 8 cases of fractures of the femur, six were cured, without any shortening of the extremity, the argument cannot form any very potent objection to the practice; and indeed the very fact of all the muscles of the limb being equably and strongly compressed, (for the apparatus should be made to incase the whole of its length,) subdues in a great measure their tendency to contraction, and therefore obviates the tendency of the bones to ride over each other.

But if the immoveable apparatus which we have so strongly praised, and which our readers will find described at length in the 3d vol. of Baron Larrey's Clinique Chirurgicale, and also in an admirable thesis published lately by his son, possessed no other advantages besides the one of permitting the patient to move about safely during the treatment of his fracture, we should deem this sufficient to recommend it to the notice of surgeons; perhaps a case in point will be received as the most satisfactory evidence of the benefits accruing from its adoption.

A man of healthy constitution was admitted into a hospital for a complete fracture of the bones of the leg, about two inches above the malleoli. During six weeks he was treated by the common method, but at the end of that time it was found that union had not taken place. The foot being considerably everted, M. Berard first brought it into its right position and then retained it there by means of Dupuytren's splints, for another month and a half;

and although there had been no displacement all this time, there was still a complete failure of any bony union. The immoveable apparatus was now applied; and when this had become sufficiently firm and compact, the man was allowed to get out of bed and walk about the ward on his crutches, without ever putting the broken limb to the ground. After the expiry of six weeks a perfect cure was obtained.—*Archives Générales.*

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## X. ON THE PROGRESS OF PHYSIOLOGICAL SCIENCE IN THE PRESENT CENTURY.

The preface to the tenth French edition of Richerand's Physiology is written with much spirit by the eminent Baron, who avails himself of the opportunity to take a retrospective glance at the changes which physiological science has of late years undergone. "Since the first publication of this work, physiology has passed through a revolution which is every day becoming more and more complete. Towards the close of the 18th century the doctrine of vitalism reigned almost exclusively in our schools. Disciples of Borden, every thing was believed by us to be controlled by, and subjected to, the supreme influence of organization and of the living principle; and the truths of physiology appeared to belong to a loftier and a more abtruse order than those of physics and chemistry. Influenced by the dictum of Aristotle, that where 'the natural philosopher stops, the physiologist begins,' we were unwilling to admit, but with the greatest reserve, the explanations afforded by pneumatic chemistry, which at that time was pursued with such brilliant success by men of the most distinguished talents. The remembrance of the injurious effects to medicine of the physico-chemical theories of Boerhave and of Silvius, increased the distrust which discerning men had entertained against the explanation of living phenomena, by the laws operating upon dead matter. It was in vain that authors of the highest celebrity attempted to bring physiology under the empire of general physics, and to show the similarity, if not the identity, of the forces which prevail in each. Every attempt was either repulsed at once without enquiry, or received with the most incredulous caution. Such was the spirit of the works of Pinel, and of his followers; of Bichat and of myself, at the period of the first publication of my physiology. Notwithstanding these obstacles, the fellow labourers of Lavoisier, (and among these we need only name par excellence that most eminent of modern mathematicians M. Laplace,) persisted in their belief that physiology was only a branch of physics; and the then recent discoveries of Volta, of a new, a most active, and universally pervading agency, added a tower of strength to this side of the question. From the date of these discoveries, the attention of philosophers in every country was directed to trace and compare the curious and highly interesting relations of the phenomena of electricity and galvanism, in their ordinary and best known operations, with those exhibited by the nervous system of living animals. The important deduction is now established, that the instrument of the will and of the ideas, the nervous and cerebral system, differing according to the intelligence allotted to different animals, presents to our view diversities of conformation, of volume, of arrangement, and of proportions, as numerous as are the degrees of intelligence and of voluntary action. In addition to this, it has been ascertained that it is chiefly by the extension of the superficies, through the increase of the number of the convolutions, that the power of the nervous apparatus is exaggerated, just in the same manner as the power of a galvanic pile is exaggerated by adding to the number or size of the plates which we employ. Still it must be confessed, that we are very far from having discovered to what extent this important agent, viz. electricity, operates in the production of the vital phenomena, and that, what we do know of it, is much less than that which we do not know. In the functions of respiration and of digestion, it will be admitted by all to

play a most important part, although we may be ignorant of the essential nature of these processes; and the day is perhaps not far off, when its relation with the phenomena of innervation will be made apparent, and all the mysteries of sensibility will, by its means, be explained. No physiologist has achieved more in this department than Dutrochet;—his work, wherein he develops the theory of endosmosis and exosmosis, may be considered as one of the most remarkable productions of modern times."

M. Richerand, having thus determined the character and objects of physiology, and having endeavoured to prove that at the present period the general aim in all quarters is to discover in the laws of physics the solution of the phenomena of organised matter, subjoins some remarks in explanation of the motives which have induced him to associate Professor Berard as a fellow labourer in the editing the new edition of his book.

"It is now several years," he says, "since I was engaged in researches relating to the condition of the organs in the embryo and fœtus, and which revealed to me that the human fœtus exhibits in succession all the forms, and follows all the degrees of organization and of life, so that before attaining to its perfect development, a development more exalted than that of any other creature, it has previously passed thro' the entire scale of animal existence. Instructed at the same time by the immortal author of 'The History of Fossil Remains,' (M. Cuvier,) that the debris of the animal kingdom which are buried in the antediluvian strata of the earth, display a progression of animals successively more and more complex in their structures, in proportion as these strata are placed nearer to the surface of the earth, and that the skeleton of man has never yet been found in a condition strictly and truly fossil—a fact which leads us to suppose that the Creating Power had called man into being, after the less perfect and less complicated animals had been formed. Impressed, I say, with all these considerations, I felt within myself as if I had ascertained the truth of one of the most general laws of organized matter."

But, not satisfied with the lofty pursuits of the philosophy of living beings, the Baron must soar a higher flight, and, penetrating the dark recesses of the metaphysical and political sciences, he strives to shew that there must be a gradation of moral feelings and of social rights and privileges from the more simple up to the most complex, just in the same way as geology has shewn us that Nature has followed in the creation of organized matter.

The public may expect to be illumined on this mysterious subject, worthy of Kant himself, or of the most abstruse of trancendental philosophers, in a forthcoming work of M. Richerand, which, we are told, was interrupted by "that revolution, which, after having changed in a few days the destinies of our country, has extended its influence over all the nations of Europe, shaking political order, and threatening the very foundations of social economy!!"—Really we, on this side of the Channel, had no idea of the "hurly burly" effects of the "beautiful three days" of July.

Occupied with this grand topic, our author has deemed it right to avail himself of the aid of M. Berard, in making those additions and corrections which a new edition of his physiology required.

This preface of M. Richerand, although ingenious and interesting, is not likely to be assented to, in all its positions, by the intelligent English reader. Our French brethren are proverbially known to love change, and at the present moment their chief aim appears to be to bring physiology back to where it was under the reign of the mathematical, chemical, and mechanical philosophers of former days;—so true is the pungent remark of one of their own wits, who said, "There is nothing so new as that which is forgot."

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## XI. On the Diagnosis of some Symptomatic Affections of the Heart.

The diagnosis of diseases of the heart is far from being accurate and easy;

and daily we meet with cases, which have been treated as such, but without success, recovering gradually of themselves, when the physician has ceased his officious interference.

To distinguish between actual idiopathic disease, whether functional or organic, and the merely symptomatic and consecutive affections which may or may not occur during the course of other morbid states of the system, must therefore be an object of great importance. We well know that in nervous subjects, the slightest agitation of mind or body will at once induce many of the symptoms of cardiac disease; there may be the tendency to syncope, the fluttering, irregular, and intermittent pulse, the dyspnœa, and so forth, all present; but then the rapidity of the attack coming on, at least generally, after a fright or tale of distress, or a sudden surprise, and the gradual convalescence, under proper management, will soon dissipate our alarm. When such attacks as these recur frequently, and the system becomes, at the same time, more enfeebled and leuco-phlegmatic, the feet being œdematous, the face puffy, the breathing distressed, and the heart palpitating violently on any exertion, a medical man may be somewhat puzzled to decide, whether these symptoms are to be considered as indicative of heart disease, or of a systematic disorder, in which the heart, like other organs, is secondarily involved. If our patients be young, and especially if they be of the female sex we may, in a large majority of cases, suspect, à priôri, that the latter supposition is the correct one. There are three morbid states of the system which, in particular, are often attended with symptoms simulating those of heart-disease, viz. chlorosis, anæmia, and incipient development of tubercles in some internal organ. The following case is an instructive one.

A female, 25 years of age, of a healthy constitution, and regular in her catamenia, had been treated during some years, at the Hôpital Beaujon, for severe palpitations and a breathlessness, which made her attendants apprehend the approach, or actual existence, of an aneurism of the heart. Under this impression, she was bled, leeched, and purged for several months; but no relief was obtained. The very opposite treatment, "inverse medication," was then employed, and she was rapidly cured, after she had been so much reduced by the Valsalva doctoring, that she had not strength to raise her arm from the bed. About the middle of last May, she was again distressed with her old complaint, which came on after a profuse menorrhagia. The palpitations and dyspnœa were so distressing, that the patient was obliged to keep her bed. She was again treated for disease of the heart by venesection and leeches, and to such an alarming state of exhaustion was she brought, that little hope was entertained of saving her life. Of this, however, her body appeared somewhat tenacious; for, by degrees, the immediately threatening symptoms abated, and she returned home.

M. Pigeaux was at this time called to attend her. On examining the region of the heart, he found the pulsations slow and feeble, but regular, subject only to occasional acceleration; no abnormal bruit was audible, although the second sound was sharper than in health, and resembled a good deal the first, or auricular one. The jugular veins were distended by the reflux of the blood, alternately with the impulsion of the point of the heart.

By percussion, it was easily ascertained that the size of this organ was of natural dimensions. Over the middle of the sternum, the sounds were obscured, and at the back they were scarcely perceptible. The respirations were much quickened, being from 40 to 42 in the minute. Mucous and sibilant râles might be heard over the whole of the chest, and there was some degree of dulness on percussion at the base of the thorax, both in front and behind. The abdomen was very tender over the regions of the liver and of the colon, and also over the iliac fossæ. The pulse was soft, very compressible, and beat about 70 times in the minute. Every now and then the patient experienced attacks of syncope, which seemed to her to indicate the approach of death; and at other times she was so

low, that she lay seemingly unconscious of every thing around her. The menorrhagia still continued, and her stools were found to be mixed with blood. M. Pigeaux, having carefully considered all the symptoms, especially those which were revealed by auscultation and percussion, and having ascertained, as far as he well could, the long previous history of the case, came to the conclusion that no actual and idiopathic disease of the heart existed; but so precarious seemed the state of the patient, that he gave a very guarded prognosis. His attention was first directed to restrain the intestinal hæmorrhage; pills, consisting of two grains of dried extract of cinchona, and one of alum, were given every half hour. The hæmorrhage was stopped, but violent colicky pains came on, indicating, no doubt, the efforts of the bowels to evacuate the retained blood. These were gently assisted by the occasional use of mild lavements. The uterine discharge was next subdued, and the patient allowed a little wine, in addition to nutritious broths; the pulse began to rise, but the icteric symptoms (not mentioned before) were stationary. The sight and hearing, which at first were almost quite extinguished, regained a little of their activity, and the patient was now sensible of the questions which were addressed to her; by signs, she shewed that she understood their meaning. The alum in the pills was now exchanged for small doses of the subcarbonate of iron. This treatment was continued for a week and then the condition of the patient was so much improved, that M. Pigeaux deemed himself warranted in announcing his hopes of her ultimate recovery. The action of the heart became stronger, and at the same time more calm, and the pulsations of the jugular veins did not ascend above the middle of the neck; the second or inferior sound had regained somewhat of its normal dulness. The patient lay constantly with the head very low, and she was cautioned against ever rising suddenly from the horizontal position. The sight had now so much improved, that she was able to distinguish between darkness and bright daylight. At the end of the second week, the iceterus had almost quite disappeared—the speech was restored, and the appetite had become so vigorous, that she wished for more food than was expedient to allow her; but still the sight was very imperfect—it was only with difficulty that she could recognize a hand held before her. She was taking 10 grains of subcarbonate of iron three times a day; but this quantity was soon found to be too great, and the pills, consisting of the extractum cinchonæ and subcarbonate, were substituted. By the end of the third week, we are told that she began to shew "legers soins de propreté et de coquetterie," always a favourable sign with females, and soon after she had quite recovered.

*Reflections.* M. Pigeaux very properly condemns the ignorance, or extreme negligence, of this girl's previous medical attendants. The complete absence of all abnormal sounds of the heart, the feebleness, but regularity, of its pulsations and of those of the arteries, and the circumstance of the cardiac symptoms having been preceded and accompanied by a profuse loss of blood, ought, indeed, to have made every one pause, before they subjected their patient to a course of treatment, so painful, and so pernicious, as that which has been called by the name of Valsalva.—*Journ. Hebdom.*

Our readers will do well, to re-peruse a paper of M. Bouillaud, on the Diseases of Young Females which simulate Disease of the Heart. It appeared in our last No. The converse of such cases, viz. where the anæmia and chlorosis are the effect, and not the cause, of the cardiac symptoms, is not unfrequently seen in practice, and mistakes in our diagnosis may be still more dangerous than in such an example as M. Pigeaux has afforded. We lately were called to attend a young lady, who had been treated by a physician for chlorosis, by large doses of subcarb. ferri, and in whom violent hæmoptysis came on. Disease of the heart had existed all the time.—ED.

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## XIII. OF THE NEWLY-DISCOVERED SUBSTANCE WHICH HAS BEEN CALLED "CREOSOTE," AND OF ITS MEDICAL PROPERTIES.

THIS substance was found first in pyroligneous acid, and subsequently in all sorts of pitchy matters, by M. Reichenbach, during some experiments he was making on the products of the distillation of vegetable compounds. He gave the name of "Creosote" to it, from its property of preserving flesh from decay: (κρέας, caro; and σωζω, servare.) It is an oleaginous liquid, having the consistency of almond oil, is colourless, transparent, and possesses a high power of refracting light; its smell is penetrating, unpleasant, and somewhat like that of smoked meat; its taste is hot and exceedingly caustic; its spec. grav. is 1.037; it boils at 203° cent., and does not freeze at 27° c. The most interesting properties of this substance are the following. As soon as it is brought in contact with the white of an egg, the latter becomes densely coagulated; and so delicate a test is it of albumen, that if a single drop of the creosote be dropped into a very diluted solution of it, there is an immediate and copious formation of white pellicles. If a piece of fresh meat be steeped in a solution of creosote for half an hour, and then dried, it may be exposed for any time to the heat of the sun, without undergoing any decomposition; for, instead of becoming tainted, it becomes quite hard in the course of a week, assumes the smell of smoked meat, and a reddish-brown colour. Fish may be preserved in the same way. M. R. supposes that creosote is the preserving or antiseptic principle, possessed by vinegar, pitch, and smoke. When creosote is mixed with blood, the albumen of the serum is immediately coagulated; the coagula entangling and enveloping the colouring matter, while the fibrine appears to be unaffected: and it is probably in this way that it prevents and arrests the putrefaction of flesh; the mere muscular fibre, apart from the blood, having but little tendency under any circumstances to decay. When a drop of creosoté is put on the skin, it speedily destroys the epidermis. Insects, fish, and plants are soon killed by being immersed in a solution of it. M. R. was led to believe that the medical properties of pitch, pyroligenous acid, the animal oil of dippel, and more particularly of the "l'eau empyreumatique," (lauded so highly by some in case of cancer and of gangrene. It is obtained by adding common pyroligneous acid to a quantity of chalk until the effervescence cease, and then withdrawing by distillation rather more than one-half of the liquid,) might depend on the creosote contained in them; and he instituted therefore some experiments to ascertain its effects, in a concentrated and also in a diluted form;—but we have no satisfactory account of the results of these. M. Seiel has very accurately compared the solution in water of the creosote with the aqua binellii, and he is of opinion that creosote is the basis of that renowned styptic; and indeed, that this nostrum is only a very diluted solution of the creosote. M. Reichenbach employed the solution as a wash in some cases of burns, and with decided utility, not only in those without any abrasion of the surface, but also in such as had been followed by loss of substance and suppuration. The common itch, and several other cutaneous diseases also were benefited by its application. Carious ulcers were treated with advantage, by being well wetted with the creosote solution; toothache arising from decayed teeth was instantaneously relieved by a drop or two of the pure fluid distilled into the carious cavity; and even the mere gargling the mouth freely with the solution was often efficacious.

From this short statement it will be observed that the newly-discovered substance of creosote is nearly allied to many of the essential oils, and especially to the cajeput oil of medicine.

If the discovery of its presence in the famous Italian styptic, the Binellian water, and if, at the same time, the report of the virtues of this nostrum be confirmed, the art of surgery will have received a valuable boon from M. Reichenbach. The readers of our last

Number may, however, remember that, in the abstract of Baron Graefe's Report of the Surgical Hospital at Berlin, it is there stated that, in several experiments, the creosote solution, as well as the genuine water from Italy, had proved quite nugatory.—*Archives Générales.*

## XIII. ANATOMICAL NOTANDA.

*Anatomy of the eye.*

In a valuable monograph on the Anatomy of the Human Eye, Dr. Arnold, the celebrated author of the work on the Great Sympathetic Nerve, has entered into a minute description of each structure of this organ, as it was ascertained by accurate microscopical researches.

He confirms the statement of most preceding anatomists, that the cornea is to be viewed as a continuation, or prolongation, of the sclerotic coat, and that it is invested with a fine layer of the conjunctiva; this latter fact is best shown by macerating the eyeball in hot water. We are told that the conjunctiva corneæ is of a serous nature, and that the conjunctiva scleroticæ forms, as it were, a transition-structure between mucous and serous tissues. (!) The cornea itself is composed chiefly of lymphatic vessels, which Arnold could see distinctly with the microscope—the separation into lamellæ is altogether artificial. Between the sclerotic and the choroid is the arachnoid coat of the eye, adhering firmly to both of them—it is most easily detected in the eye of the fœtus. The choroid is to be considered analogous to the pia mater of the brain, and is no doubt, primarily, a prolongation from it, and in the adult eye, retains an intimate communication with it by means of numerous blood-vessels, which accompany and surround the optic nerve. Its texture consists altogether of cellular substance and of minute vessels. The membrane of the aqueous humour is a shut cyst in the fœtal eye, as long as the membrana pupillaris exists, but becomes lacerated when that structure is removed. The iris is certainly not a continuation of the choroid; its texture appears to consist altogether of a vascular membrane, interlaced with numerous fibres, which are the extremities of the ciliary nerves. No trace of any muscular fibres can be discoved.—*Annals de Hecker.*

*Observations on the Ganglion Oticum.*

Arnold having announced a few years ago the existence of a nervous ganglion, which supplied the auditory apparatus with the nerves of their organic life, and which might, therefore, be considered as analogous, in respect of the ear, to the ophthalmic or lenticular ganglion in respect of the eye, anatomists have very properly made numerous dissections, for the purpose of verifying or of disproving this statement. Among others, Stannius of Berlin, Muller of Bonn, and Boch of Leipsic, have published an account of their researches, which are quite unfavourable to the correctness of Arnold's supposed discovery; and more lately, M. Assman has brought out a monograph at Leipsic, in which he also attempts to prove that no such ganglion exists. The substance which has been described as a nervous ganglion, he says, is sometimes wanting altogether, and when present, it appears to be a mere glandular-like mass, adhering to the sheath of the trigeminus. The nerves which Arnold has traced from the ganglion are, in truth, all derived from the adjoining nerves; for example, that one which, according to him, supplies the tensor tympani muscle, comes from the pterygoideal nerve, and his nervous petrosus superficialis minor is nothing but a shred of cellular tissue. The glandular nature of this supposed ganglion is very apparent in some of the larger animals, as the stag, and it has been generally observed to be smaller in old than in young animals of the same kind. M. Assman, in conclusion, has no hesitation in asserting, that the ganglion oticum Arnoldi is nothing but a lymphatic gland (and this is only occasionally present,) and that what has been described as nerves, as proceeding from it, are merely filaments of dura mater or of cellular substance.—*Annales de Hecker.*

In reference to the subject of the

preceding extract, it is but right to state, that several anatomists of high repute in Germany admit, in full, the correctness of Arnold's descriptions; and we find that, within the last month or two, Professor Mayo, of King's College, has completely satisfied himself of the existence of the ganglion oticum, although he had previously announced his failure in discovering it.—ED.

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## XIV. HISTORY OF THE LAST ILLNESS OF GOETHE.

Almost every anecdote, however minute, respecting the life and dying moments of a man so loftily distinguished as the author of Faust, excites curiosity, and, if authentic, may often convey a useful lesson. To the medical man in particular, the study of human character is not only interesting, but of high importance for the right pursuit of his profession. The maladies of the body in patients so spiritual and intellectual as Goethe and Byron, are always more or less different, or are at least modified, from their ordinary features; for they seem to receive, so to speak, a colouring or hue from the character of the being in whom they occur. There is what may be called a "mental temperament" or "mental idiosyncrasy," just as there is a sanguineous temperament, or a lymphatic temperament, and so forth. Some may say that this is but a variety of the nervous temperament, and their assertion is true to a certain, but not to the full extent; every day we meet with numerous individuals, who may be truly said to have an extremely nervous constitution, one which is characterized by an exceedingly mobile or impressionable state of the nervous system, and in the treatment of whose disorders a special therapeutics is required, but yet who do not exhibit the features or character of what we have designated as the mental temperament; but these two may be, and very often are, associated in one individual; and such was the case, we should think, in Lord Byron, that marvellous compound of strength and weakness, of grandeur and littleness—a being, the restless activity of whose mind seemed to be too great a match for his corporeal energies, and whose body might aptly be compared to a harp chord, strung to the utmost, either vibrating to the fullest sweep, or snapping across on the simplest touch. Such a body, when affected with disease, must necessarily require a most delicate management; all over-excitement, or too great depression, will be found hazardous in the extreme, or, to pursue our simile, the harp chord must ever be braced or unloosed with the softest hand and with the extremest gentleness.

It has been often remarked, that few men of distinguished literary talents bear vigorous depletion well; it seems to act upon them almost as a sudden refrigeration acts upon a heated glass vessel—the system has not the power of easily accommodating itself to the change of its condition, and its mechanism is fairly unhinged. Before pursuing our remarks any further, we shall briefly notice the most striking features of Goethe's last illness. This master poet of his age was distinguished no less by his wonderful natural endowments, than by the astonishing indefatigability of his intellect; for, not satisfied with having reached the proudest summit of poetical fame, his mind had discursively ranged over the sciences of botany, of philosophical anatomy, and of optics, and in each of these branches of science he has left monuments of his surprising acuteness. It was he who first pointed out the traces of an intermaxillary bone in man, and to him belongs the merit of having originated the idea, of a certain unity of formation being traceable throughout all animals, which Geoffroy St. Hilaire has subsequently so beautifully unfolded and illustrated. In vegetable physiology, he shewed by his work on the Metamorphosis of Plants, that he was at least a quarter of a century before its then existing condition. Whatever, in short, he applied his mind to, received the impress of its glowing activities.

The exterior of Goethe was in harmony with the fine spirit which was

tenanted within; he was tall, well proportioned; his chest was large and dilated, his limbs strong, his sensual organs sound and active. In youth he had frequently indulged to excess in the gifts of Bacchus; but in his later years he was exceedingly abstemious, at least with respect to drinking. He had the peculiar idiosyncrasy of being affected by unusually small doses of medicine; a tea spoonfull of tincture of rhubarb acted as a moderate aperient on his bowels, and a quarter of an oz. of Glauber's salts operated with drastic severity. His constitution, although naturally fine and vigorous, had suffered after the completion of almost every one of his great works; the outlay of mental strength seeming to be uniformly followed by an exhaustion of his bodily energies.

Towards the close of the year 1830, Goethe had a severe attack of hæmoptysis; but from this illness he recovered completely. On the 16th of March, 1832, he had gone out in a carriage to take an airing, and on his return home he began to complain of having suffered from the chill air; his appetite failed, which was not usual with him; and feeling generally indisposed, he retired early to bed; but his sleep was disturbed by a troublesome dry cough, and by repeated chills followed by short fits of feverish heat. On the following morning his countenance was dull, his breathing distressed, but there was no pain of the side; he was thirsty and much annoyed by eructations of large quantities of flatus from the stomach; the abdomen was tympanitic, rather tender on pressure, and the bowels had not been relieved for two days. The skin was dry, urine turbid, pulse moderately full; he said that he felt as if his head was empty, and that he could not combine two ideas together; his deafness (with this he had been troubled for a considerable time previous) had increased; and he was constantly repeating a favourite apophthegm of his own; "When a person has no longer a right to live, he must be contented to live as he can." A gentle aperient and mucilaginous drinks were prescribed; when the bowels were relieved, he expressed that his general feelings were more comfortable. Small doses of the red sulphuret of antimony were ordered to be taken at short intervals. The distinguished sufferer was so much benefited by these means, that in the course of two or three days his friends thought that he was quite convalescent. But, alas! these hopes were to be blasted; during the night of the 19th he had a return of the cold shiverings, and these were accompanied with startings of the limbs, and with much precordial anxiety. On the following day, Dr. Vogel, the physician of the Grand Duke of Weimar, was summoned to his assistance; he found him in a state of extreme agitation, tossing about from one side of the bed to the other, for he could not find any position that was comfortable; his teeth chattered together; his looks were much altered, the eyes were sunk, and every now and then he complained of sharp pains in his chest. There was a cold clammy perspiration on the skin, the pulse was quickened and hard, but could not be very distinctly felt; the abdomen was tympanitic, and his thirst ardent. He himself dreaded a return of the hæmoptysis.

An infusion of peppermint and chamomile, to which some æther and solution of anisated ammoniacum were added, was ordered to be administered at short intervals; the heat of the surface then returned in a short time, and the pain being fixed over the great pectoral muscle, a blister was applied there. In the evening he felt himself better, and his physician found him seated in his arm chair, from which he never rose afterwards. On the 21st the unfavorable symptoms were decidedly aggravated; the prostration of strength was extreme, and occasionally the mind was quite bewildered and delirious. A loud sonorous rale in the chest was distinctly audible; the lips were glued together with a viscid mucus, the tongue was coated with the same; the expression of his features at this time was, however, calm; and this appearance alone sufficiently attested that the patient did not suffer much bodily distress; for, with his constitutional im-

patience, it would not have been long concealed. From several expressions which dropped from him, it was quite manifest to the attendants, that Goethe was not at all aware of the nearness of his dissolution. His speech gradually became more and more confused; "more light," (mehr licht) were the last words which he spoke; and when the tongue refused any longer to utter his ideas, he would endeavour to express them by signs, at first in the air, and then, as his strength failed more and more, on the bed-clothes.

At half past eleven he expired, resting on the left corner of his chair.—*Journal de Hufeland.*

The preceding report is instructive, as far as it goes; for without a post-mortem examination, it is almost impossible to arrive at a very accurate diagnosis of the real nature or the seat of Goethe's illness; the impression left upon our minds from an attentive perusal of Dr. Vogel's account is, that the disease was a masked or indistinct bronchitis; and if our judgment be correct, it must necessarily follow, that we altogether disapprove of the treatment adopted by the medical attendants. The Broussais plan is the one which we most certainly should have recommended; no large bleedings, but only the carefully repeated application of leeches; and in addition to this, we should have prescribed refrigerants, such as the nitrate of potass, the acetate of the same, alcali, the spiritus mindereri, or such like.

But it is unnecessary to enlarge on this hypothetical case, and our only motive in so far expressing our opinion is, to encourage our readers to analyse for themselves many of the reports of medical cases with which every journal teems. It is a useful exercise, and is well calculated to train the mind to accurate reasoning.

We regard Goethe's last illness as a very faithful pattern or sketch of disease, as it often exhibits itself in many patients of high mental endowments: there is an irritability or fretfulness of the system, associated with a condition of bodily energy, 'below *par*;' and it is this compound state of the machine that we should ever keep in view, when called to treat its disorders. We have often had occasion, in practice, to remark an analogous state of body in patients who were a prey at the time to any depressing mental emotion, for example, in bankrupts, in gamblers, prostitutes, and in those who were secretly pining from neglect, or disappointed hopes.—REV.

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## XV. CALCAREOUS INCRUSTATION ON THE CRYSTALLINE LENS.

This incrustation occurred on the lens of a horse, covering nearly the whole of its anterior surface; it was hard, friable, and irregular or slightly mammillated; of a yellowish-white colour, and weighed rather more than eight grains. The texture of the adjacent lens had become softened, and almost puriform, so that mere washing separated the concretion from its attachments. M. Lassaigne, on analysis, found that it consisted of—

| | Parts. |
|---|---|
| Albuminous Animal Matter . . | 29.3 |
| Phosphate of Lime . . . . . | 51.4 |
| Carbonate of Lime . . . . . | 1.6 |
| Alcaline Salts . . . . . | 17.7 |
| | 100. |

It may be regarded therefore as a sort of ossification, containing however an unusually large amount of the earthy phosphate.—*Journ. de Chimie Medicale.*

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## XVI. MULLER'S EXPERIMENTS ON THE BLOOD: THE FIBRINE SUPPOSED TO BE IN A STATE OF ACTUAL SOLUTION DURING LIFE.

The common opinion, as to the manner in which the coagulation of the blood is effected, is, that the clot or crassamentum is formed, and separates from the serum, by the aggregation of the red globules, which are supposed to be fibrinous corpuscles, invested with a layer of colouring matter. When the clot is washed with water, so as to become colourless, it is imagined that the

colouring matter only has been detached, and that the pure fibrine, which, according to this opinion, had hitherto existed in the clot as distinct granules or nuclei, now remains agglutinated together into one mass. Sir E. Home, MM. Prevost, Dumas, Dutrochet, and others have taken this view of coagulation. Berzelius, however, reasoning from the circumstance, that lymph contains a certain portion of fibrine in solution, has conjectured that the fibrine of the blood may be virtually and truly dissolved in the circulating mass during life—that the serum is to be considered as a fluid strained off from the blood, and that the clot is formed by the precipitation of the dissolved fibrine, which, as it separates in the solid form, entangles and agglutinates together the red globules. To determine this question, Muller has performed numerous experiments, and the result of these has been to satisfy himself of the correctness of Berzelius's conjecture, that the fibrine of the blood is actually in a state of solution during life. If some frog's blood (the globules of which are proportionally very large) be received into a watch-glass, we shall find, by examination with the microscope, that before the coagulation is finished, a few colourless, almost transparent, coagula are formed; these may be lifted up and separated at the edges with the point of a needle, and if the blood is poured off in a minute or two after it has been discharged, we may observe several points and small pieces of this colourless coagulum adhering to the bottom of the watch-glass.

These appearances Muller has repeatedly witnessed. If the blood be previously diluted with a little serum, so that the red globules are more sparse, and kept farther apart from each other, these minute colourless coagula may be seen in the intervals between the globules; and, indeed, it appeared as if the scattered globules were held together by these coagula; for it was observed that they were all dragged along together, and at the same time, by merely tearing with the needle's point the intervening coagula.

The blood of the frog is much better fitted to exhibit these phenomena than human blood, because the globules in the former are proportionally so much larger than in the latter. There is another, and a still more convincing method of ascertaining that the fibrine is really and truly dissolved in the living blood. —Let a small quantity of frog's blood, previously diluted with an equal quantity of water, be filtered through common filtering paper, the globules, being large, do not pass through, and an almost colourless serum (slightly tinged red, from the presence of a minute proportion of the colouring matter which has been dissolved by the water) is obtained. If, instead of adding pure water, we use a weak solution of sugar, the filtered serum will be quite colourless, and free from any admixture. When this serum is examined with the microscope, no traces of any globules can be discovered; but in the course of a few minutes, an almost perfectly transparent coagulum becomes perceptible, and this may be drawn out on the point of a needle. If allowed to remain, this coagulum thickens, becomes opaque and fibrous, and resembles much the coagulum of human lymph. In this way, the fibrine of the blood may be obtained in its purest state. It is to be remembered, that only a minute portion of it indeed is dissolved in the filtered serum, the larger portion being detained on the paper, in consequence of it becoming coagulated before it has time to pass through. If the serum, as it filters, be received into a watch-glass, in which there is some liquor potassæ, numerous flocculi are gradually formed; this appearance is still more distinct, when sulphuric æther is used instead of the liquor potassæ. It is of importance to remember, that the albumen of the serum is not affected by either of these agents.

The liquor ammoniæ, acetic acid, solution of muriate of soda, or of subcarbonate of potass, do not produce any visible effects on the filtered serum. The best method of ascertaining the actual quantity of fibrine in blood, is by well whisking and stirring it about. In this way, the previously dissolved fibrine may be procured as an almost colour-

less mass, while the globules remain suspended in the serum; and these will be found to have retained their natural appearance, provided no water has been added. Berzelius most erroneously asserts, that after the fibrinous matter has been completely separated by agitation, no entire or perfect globules can be discovered floating in the serum, but only small broken corpuscles, which he regards as portions of the colouring capsules of the globules. They, indeed, will pass through filtering paper; but it is to be remembered that the entire globules of the blood, in the higher animals, will always pass through.

All the experiments which Muller has performed have satisfied him, that the globules of blood, from which the fibrinous portion has been separated by stirring, remain unchanged, and of their natural form and size, for several days; that even their flattened discs remain distinctly perceptible, and that they continue to float in the serum, near its surface, and do not sink to the bottom, as Berzelius has stated. This last circumstance indicates the high relative specific gravity of the serum in the more perfect animals. In a mixture of the serum and red globules of frog's blood, the latter are quickly precipitated; and the same is true of mammal blood, if water be added to it; part of the colouring matter is dissolved, and part is thrown down to the bottom of the vessel.

The important conclusion which Muller wishes to impress upon his readers is, that the fibrinous part of the blood is in a state of actual solution during life. Whether the nuclei of the red globules consist altogether, or partly, of fibrine, he has not yet been able to determine.—*Burdach's Physiologie als Erfahrungswissenschaft.*

## XVII.

## INSTITUTE OF FRANCE.

### I. ACADEMY OF MEDICINE.

*Sittings in October.*

INDUCTION OF PREMATURE LABOUR.

M. Stroltz, member of the Faculty at Strasbourg, communicated the particulars of a case in which he induced labour at the end of the seventh month of pregnancy, in a woman, 29 years of age, hunch-backed, and otherwise deformed, and who had been delivered in her two preceding labours by the operation of embryotomy. He introduced pieces of prepared sponge into the neck of the womb; as these became moistened with the discharge of the part, they gradually dilated the passage, and at the end of three days, the woman gave birth to a living child. It lived for three months and a half; and the mother survived eight months after her accouchment; the cause of her death was pulmonary consumption. On examining the body after death, it was ascertained beyond doubt, that the pelvis was too much contracted, ever to have given passage to an ordinary sized fœtus of nine months.

[We are not informed of the opinion of the Academy on the preceding communication, but the Editors of the Revue Medicale, from which the report is derived, have subjoined some remarks of their own, and as they express the sentiments of by far the larger portion of the French medical school, it may be well to subjoin them.

"The practice of M. Stroltz is certainly very bold; but we cannot take upon ourselves te recommend its imitation.

To provoke labour before the appointed and natural time of occurrence, is to assume the power of condemning to death a living being, or at least of greatly diminishing its chances of existence. Now, can a medical man, with the approval of his conscience, pronounce upon the propriety, and can he be the direct author of such a step? Is he permitted in any way to compro-

mise, if not sacrifice, the life of the child for the safety of the mother?

These are delicate questions, which involve alike many moral, religious and political considerations; and surely they ought never to be boldly solved by any physician alone. While any doubt exists, it will be well to abstain from such a hazardous attempt.

The practice of inducing premature labour has indeed been frequently commended and practised by English and German accoucheurs; and we are told that, in addition to the advantages to the mother, when it has been ascertained that her pelvis is not capacious enough to permit the exit of a full sized child, numerous statistical or tabular reports of midwifery writers, sufficiently shew, that artificial premature labour, say at the seventh month, is not at all more dangerous to the life of the child, than the Cæsarian operation, or indeed than most of the manœuvres we are compelled to adopt, in difficult and protracted labours. But can we fairly and conscientiously deduce very exact inferences from all these reports, when we reflect upon the marvellous resources, (and these too often altogether unexpected) of nature to expedite and complete many accouchements which had been pronounced almost impracticable by good and expert physicians?"]

### COWPOX, ORIGIN OF.

The report of some experiments lately performed by M. Fiard, was read to the Academy. Jenner had announced that the cow-pox was a disease generated by the inoculation of the matter of the "grease," or as the French term it, "eaux aux jambes," in horses. Some physicians, on the other hand, viewed it as an idiopathic, and not as a consecutive disease, and were of opinion that it occurred primarily and spontaneously in the body of the cow, just in the same manner as the rot is a disease peculiar to the sheep; and lastly Dr. Robert of Marseilles adopted the hypothesis, that cowpox is nothing else but the smallpox, communicated to the cow, and modified, and rendered more mild by the peculiarities of the constitution of the beast. With the hope of throwing some light on this very interesting but obscure subject, M. Fiard instituted a variety of experiments. On the one hand, he inoculated four cows with the virus taken from "greasy" horses; and on the other he inoculated eleven cows with the matter of genuine variolous pustules, occurring in the human body; but in neither set of cases was any disease communicated. M. Fiard then was anxious to repeat the experiments of Dr. Sonderland of Bremen; [these experiments, as most of our readers probably know, consisted in enveloping cows with the bed-sheets and coverings which had been used by variolous patients, and which were therefore impregnated with the cutaneous discharge;] but as they had been very carefully tried without success at Alfort, he thought it unnecessary to go over the same ground. On the whole he concludes from his researches, that the vaccinia is a disease truly and purely "vaccal," or peculiar to the constitution of the cow, and not the result of any preceding inoculation. M. Girardin confirmed the statement of M. Fiard, that the experiments recently instituted at Alfort, for the purpose of ascertaining the accuracy of Dr. Sonderland's conclusions, were most unfavourable, and indeed quite opposed to them. In vain cows were kept covered for several days with the bedsheets, &c. of variolous patients. No results ever followed, indicating the transmission of any disease; and as the experiments which have been performed in England and Italy also, for the same purpose, have been equally nugatory, we are bound to discredit all the premises on which Dr. S. has founded his theory, of the identity of the variolous and vaccine poisons.

M. Huzard stated that the old vaccination committee had repeatedly attempted to produce vaccinia, by inoculating cows both with the matter of the "grease," and with that of the human cowpox vesicle, but always unsuccessfully.

M. Boiveau Laffecteur alluded to the cases of himself and of his child, both

of whom had been vaccinated, quite successfully, with virus taken directly from the cow. This inoculation was repeated on the cow, but it did not succeed.

[In another report of the Academy-proceedings, we find that it is stated, on the authority of M. L. that the genuine cow-pox has been induced in the cow, by inoculation with the virus of the human vesicle.—ED.]

Mr. Salmade confirmed the statements of M. L. respecting the mutual communicability of the vaccal virus to man, and of the human vaccine virus to the cow.

### TREATMENT OF THE CHOLERA.

Doctor Petit, physician of the Hôtel Dieu, read a memoir on the means best adapted to induce re-action in the cold stage of cholera. He alluded to his practice during the preceding year, of applying along the whole length of the spinal column compresses, wet with a mixture of equal parts of liquid ammonia and spirit of turpentine, and of then covering these compresses with others, which had been wrung out of boiling water, and, lastly, of passing frequently along these last a heated iron, for the purpose of keeping up a constant evolution of the stimulating vapour in contact with the skin. Although satisfied, then of the advantages to be derived from this procedure, he found that several inconveniences attended its adoption; for example, it required that the patient lay on his belly, and, moreover, it was not easy to keep the rest of his body covered and warm at the time. With the view of avoiding these inconveniences, M. P. had used more lately an apparatus, which was at once simple and quite efficacious. It consisted of a tin box, 2 feet long, 8 inches wide, and 2½ high, and this was received into the centre of a cushion, filled with bran or oat-chaff, the edges of the hollow in the cushion turning over and covering the angles of the box. The box is to be filled with boiling water, in which a quantity of common salt has been dissolved. The back of the patient being applied over the box, is thus exposed to a constant and steady heat, which evaporates the stimulating fluid of the compresses; and this local excitement, if kept up for one half or three quarters of an hour, M. Petit has found of most decided utility in restoring the circulation, and in rousing the nervous system.

Conjoined with this local treatment, he recommends the internal use of light aromatics and antispasmodics, and allows the patient to suck small pieces of ice. Out of 14 cases of cholera, some too, having already reached the cold stage, the above practice was successful in completely recovering 13.

### NUTRITION AND DISEASES OF THE HUMOURS OF THE EYE.

M. Professor Bouillaud, in the name of a commission, read a report on the memoir of Dr. Bourjot St. Hilaire, on the explanation of the nutrition, and of some diseases, of the ophthalmic humours, by the laws of endosmosis and exosmosis. The memoir is divided into three sections—the first is devoted to the consideration of the various theories which have been advanced, at different times, to account for the formation and renewal of these humours; and alludes to the opinion of M. Ribes, that the aqueous humour is secreted by the ciliary processes—to that of M. Petit, that the lens is nourished by a simple imbibition—and to the doctrine of M. Blainville, who regards the lens as an unorganized structure, and who rejects, therefore, altogether the supposition of its being vascular, and of its opacities being in any measure connected with inflammatory depositions. In the second section of the memoir, the reader's attention is directed to the beautiful explanation which Dutrochet's theory affords, of the formation and renewal of the ophthalmic humours. Whenever there are two fluids, of different densities, separated only by a thin membrane, a strong movement of endosmosis, of the less dense fluid, is immediately established, towards that one which is more dense, and, at the same time, a light current of the denser to the less dense fluid takes place, so

that an equilibrium of density is effected, or, at least, a tendency to such an equilibrium is begun. Now, it is in such a passing and repassing, that the mechanism of the circulation of the ophthalmic humours consists, according to Dr. St. Hilaire: thus, he supposes that the aqueous humour passes, by endosmosis, through the crystalline capsule, and in the same manner the liquor Morgagni may pass into the cells of the vitreous body; and this last may possibly be transmitted into the venous vessels which are distributed on the surface of the hyaloid membrane—the different densities of the three humours, separated as these are from each other, only by very delicate partitions, giving rise to constant endosmotic, and exosmotic actions. In the third section, the author endeavours to trace the origin of some diseases, such as cataracts, to the operation of these agencies; the fluids he supposes to vary occasionally in their respective densities, and, consequently, in their reciprocal transmissions. But this speculation, although ingenious, is not founded in any observed data. The Commission, however, in conclusion, awarded their high approval to the memoir of Dr. St. Hilaire.

### *Sittings in November.*

#### SUTURE OF THE PERINEUM.

M. ROUX directed the attention of the Academy to the very frequent failure of all attempts to unite lacerated wounds of the perineum, by means of the twisted suture. Of late, he himself has quite abandoned the use of this suture, and has substituted the quilled suture, with much more satisfactory results. About a year ago he operated upon a female, who has since given birth safely to a child, and he has more recently cured another woman, who had laboured under the disease for the space of two years; he also alluded to two additional cases, which had terminated equally well by means of the quilled suture. In most of these cases, the threads were withdrawn on the seventh day. It is always necessary to caution our patients against any straining at stool, and that they should keep their limbs close together. M. Roux does not approve of M. Dieffenbach's advice, to make one or two lateral incisions when we employ the suture to such wounds. The practice not only adds to the pain, but is often positively injurious in its effects, by the contraction of the cicatrices.

#### EPIZOOTICS.

M. Dupuy read a report upon a memoir of M. Fodéré, respecting an epizootic disease which prevailed, in the years 1821 and 22, through the department of the Bas-Rhin. The affection was seated chiefly in the lungs, and its characters assimilated it to the nature of scirrhus and tubercles. M. Fodéré deemed it to be truly contagious; but his reporter is inclined to believe that it was rather endemic and hereditary, for traces of its effects were discovered in the lungs of the unborn fœtus; and what confirms him in this view of the case is, that M. Fodéré himself recommends certain hygienic measures as prophylactic of the disease. Generally speaking, all such measures fail in arresting any epizootic; and it is much better to kill immediately all the infected animals—the main object being less to cure, than to ameliorate and renew the breed of animals.

If the disease were epidemic, such an Alexandrian method of solving the knot would be quite unnecessary. M. Fodéré had proposed that no meat should be sold at market, without a certificate of the soundness of the animals slaughtered; and, moreover, that all infected animals should be forthwith buried entire and unskinned. But both of these precautionary suggestions seem unnecessary; and, indeed, the first one must inevitably prove a great hindrance to trade, and the latter would cause a very considerable loss to the public. M. D. is of opinion that the skins seldom, if ever, propagate the disease; and he doubts that even the flesh of an infected animal does so.

To procure good stocks, to cross the breeds, and to feed well—these are the only true ways of improving our domestic animals; and it has been by at-

tending to these particulars, that the English have succeeded so admirably in bettering their butcher-meat, both in respect of quality and of size, the weight of the oxen being raised, we are assured, from 200 to 400 kilogrammes.

The chief object to be pursued, is to couple such males and females as have a large development of the soft parts, and a small development of the bones, and this crossing must be repeated very frequently.

### Medical Responsibility.

M. Velpeau, in the name of a commission, reported upon the following case.

A young woman was safely delivered of her second child, and every thing went on well until the fifth day, when fever set in, and the patient died seven days afterwards. The uterus and vagina were found inflamed, the substance of the former was friable, and its inner surface was covered with granulations, of the size of peas. The accoucheur was accused of having hurried the labour, and of having left a portion of the placenta behind, by several medical men, who signed a "procès-verbal," in which the several charges were stated.

An appeal was made to the Academy by the accused, and the commission appointed to investigate the matter now declare—1, that it is their opinion that no portion of the placenta was left behind; 2, that even had there been any remaining, the accoucheur is not therefore necessarily to be blamed, and, 3, that the conduct of those who preferred the charges is improper and censurable.

Some of the members of the Academy were of opinion, that the last declaration ought to be suppressed.

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## II. Academy of Sciences.

*Sittings in October.*

### Physical and Theraputical Properties of Chromate of Potass.

M. Jacobson, a foreign associate of the Academy, communicated the results of a very extended examination of this substance. It sustains, without decomposition, a very elevated temperature, unless carbon be present, and then a change is readily induced, at least under certain conditions, and this change is always accompanied with a very bright incaudescence. This property may be turned to a very useful account, in promoting the combustibility of many vegetable substances, as linen, cotton, paper, &c.; for it is only necessary to wet them with a solution of the chromate, and, when dried, they will burn with much heat and light, but with no flame. M. J. is of opinion, that not only is the chromic acid decomposed during the combustion, but the potassa also, by means of the carbon and chrome together. Among the practical applications which may be made of this property of the salt, our attention is directed first to the preparation of moxas. We have only to wet a sheet of paper, previously rolled into the proper shape and size, well with a solution (1 part to 16 of water,) and our moxa is made. It will burn completely away without any fanning. The chromate is admirably adapted to the composition of pastilles; but its main importance is, that with its assistance matches may be quickly made for the artillery. Another property of the chromate of potassa (that of being able to combine with different animal and vegetable substances, without suffering decomposition) renders it of use in preventing, in a multitude of cases, the processes of fermentation and of putrefaction; but, for this purpose, the bichromate is better suited than the neutral chromate. A very dilute solution (4 parts to 1000 of water) will be found to preserve anatomical preparations, without changing their form or consistence; and it has, moreover, this advantage, that it does not oxidate the steel instruments which we may be using. M. J. assures us that, after having been kept in the solution for fourteen months, he has seen preparations taken out, which might be dissected as well and easily as if they had been quite fresh. It is right to state, that all

parts are not equally well preserved; for example, nervous substance becomes much altered—membranous structures are the best adapted.

Applied externally, the chromate acts as a discutient, and a very concentrated solution will cause corrosion of the part. It has been used successfully against some sorts of ulcer and cutaneous disease.

Given internally, it produces vomiting as speedily as the tartrate of antimony; in the dose of half a grain every two or three hours it induces nausea, and may, therefore, be employed advantageously in some pectoral complaints.

### COMPARATIVE NUMBER OF MALE AND FEMALE CHILDREN—THE CAUSES, &c.

M. Girou, the author of a memoir on this subject, had previously directed the attention of the Institute to the probable causes which may determine, or at least may influence, the numbers of the two sexes. The male sex, in his opinion, is determined by the predominance of what he calls "la force motrice," which, in short, is a general term to comprehend all the causes which tend to fortify and increase the active powers of the body, such as healthful exercise, temperance, good nourishment, &c. The co-existence of these circumstances, he considers to be decidedly favourable to the procreation of boys; and the coexistence of the opposite circumstances, or of those which enfeeble the body, to be favourable to the procreation of girls. The relations of age, temperament, &c. of the two parents may also have a very considerable influence in affecting the predominance of the male or female sex of their offspring. He has ascertained that throughout the departments of France, where rural industry most prevails, the relative number of male births is above the average; and, on the contrary, that where the inhabitants are either idle, or engaged in occupations which require intelligence rather than strength, and attention rather than activity, the relative number of female births is always high.

With the permission of the prefects, M. Girou obtained authentic registers of the births, during the last ten or twelve years, in the cities of Lyons, Marseilles, Bourdeaux, Rouen, Nantes, and Montpellier; and he finds that in every one of these, as in Paris, the number of female births exceeds the average which the entire population of France yields. The statistic reports, taken from many preceding publications, afford similar data. At the Cape of Good Hope, we are told that the masters procreate more girls, relatively, than the slaves; and the registers of hospitals show, that there is a greater relative number of boys born "hors mariage" than in wedlock. This last observation is founded on numerous statistic reports on the population of Paris, and of the other principal cities in the kingdom, during a period of 14 years.

### DEVELOPMENT OF THE EMBRYO IN MAMMIFEROUS ANIMALS.

Dr. Coste, whose researches on the embryology of birds, prosecuted in conjunction with the late Professor Delpech, were crowned with the Academy's highest reward, presented now an account of his Enquiries into the Embryology of Mammiferous Animals. Hitherto, it has been a matter of much obsurity to determine, what are to be considered as the proper ova in them—some physiologists regarding as such the vesicles of De Graaf, while others assert that the ova are the small spherical bodies contained within the vesicles. To determine this very interesting question, Dr. C. examined upwards of forty impregnated rabbits; and the result of these dissections is, that he is inclined to adopt the latter of the two doctrines, and to regard the mammal ovum as, in every respect, analogous and similar to the ovum of the bird.

*Graafian Vesicles.*—These entire vesicles cannot be viewed as ova, for they are much larger in size than the ova which are met with in the Fallopian tubes; for example, in the rabbit, the former are a line and a half in in diameter, whereas the latter are not more than the sixth part of a line across.

It is an important fact, that if the ovaries be examined two or three days after conception, it will be found that the number of vesicles which have escaped always corresponds with that of the ova, which have been received into the tubes; and, also, that at those places whence they had escaped, their outer membrane, lacerated at one point only, remains behind, and contributes to the formation of the corpora lutea. This fact, which cannot now be called in question, demonstrates, in a most convincing manner, that the Graafian vesicles are not the proper ova, and, therefore, that we shall err if we attempt to draw any analogy between these vesicles and the *ova of birds*.

*Ova in Mammiferous animals.*—There exists on the internal surface of the proper envelope of a Graafian vesicle a membranous-like formation, which lines it throughout, with the exception of one point, where a small spherical body, about a sixth of a line in diameter, will be found. This body is the proper ovum—it is quite transparent, and appears to be composed of the following parts:

1. An outer envelope, which Dr. C. calls the "vitelline," because, like the membrane which incloses the vitellus in the bird, it is in immediate contact with the cicatricula, blastoderma,* or the analogous structure; and also because, being unconnected with the formation of the sanguiferous vessels, it will surround the fœtus and its appendages, without having any union of continuity with them.

2. The vitelline membrane incloses within its cavity a spherical mass, of a yellowish-grey colour, and composed of globules and granules. This mass is evidently the proper vitellus, or yolk of the mammal ovum, for it is upon it that the part analogous to the cicatricula, or blastoderma, rests, and it is at its expence that this part is formed.

3. On the surface of the vitellus, we observe a membranous layer, of a yellowish grey colour, connected by its internal surface with the external surface of the vitellus, and inclosing it all around.

This arrangement might seem, at first sight, to exclude all analogy with the cicatricula of the ovum in birds, since it, during the early period of incubation, is observed only on the surface of the vitellus, and appears as a small spot or island, formed by a circular lamella. But when we consider that the cicatricula, in a short time after conception, is gradually converted into a complete vesicle, which envelops the vitellus itself, the analogy between it and the vesicle above-described, in the mammal ovum, is at once made obvious. This analogy will be strengthened, if we remember that the omphalo-mesenteric vessels, which are developed in the vesicle, portray most correctly the arrangement of the lateral or blastodermatous vessels in the bird, and that the earliest traces of the mammal embryo appear at a point of the vesicle consisting of globules, which are regularly disposed on each side of a definite axis, in consequence of certain internal movements, similar to those which produce the same phenomenon in birds.

The mammal ovum, therefore, while still in the ovary, like the ovum in the birds, consists of three parts—the vitelline membrane, the vitellus itself, and the vesicle of the germ, blastoderma or cicatricula (all these terms have the same import). Two days after conception, the ova have penetrated into the oviduct; and, when seen there, they have so strong a resemblance to the small spherical bodies which are found within the Graafian vesicles, that we are forced to believe that these bodies are really and truly the proper ova. In other two days, the ova have reached the cornua of the uterus; as yet, they have no determinate position, but, like a drop of water, or small bubble of air, they are quite free and moveable. At this period, they are about one line in

* This word is derived from βλαστάνω, germinare, and δέρμα, cutis, and has been applied by Pander to the membraniform body which is situated beneath the cicatricula of the ovum, and whose development produces all the parts of the chick.

diameter, and may be perceived with the naked eye. The vitelline membrane and the vesicle of the germ may be easily made out; but the vitellus has diminished, in proportion to the increase in size of the vesicle. Five days after conception the ova have assumed a fixed position, which they retain during the whole term of gestation. They adhere to the internal surface of the uterus, but as yet this adherence is only that of contact; their diameter is now about two lines; their form is spherical. The vitelline membrane has meanwhile increased in volume, much more in proportion than the germinal vesicle which it incloses: this latter occupying only a third of the bag formed by the membrane. It (the vesicle) retains all the characters which it presented, while yet in the ovary: it adheres by one point of its surface with the inner face of the vitelline membrane, at the spot where this last is applied to the uterus. At that point it exhibits a circular, or elliptic spot, produced by the assemblage of the globules, which we have previously alluded to. This spot Dr. Coste considers to be the rudiment of the embryo; it is seated, he says, in the superfices of the tissue of the germinal vesicle.

The two important deductions which Dr. C. draws from all his inquiries are, 1st. That the small spherical bodies contained within the Graafian vesicles are the proper ova in mammiferous animals; and, 2ndly. That these ova are quite similar to those in birds.

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## XVIII. LACERATED PERINEUM, TREATMENT BY OPERATION.

By far the most common cause of division of the perineum in females, is the injury sustained during a difficult labour; and this injury may proceed either from the excessive distention of the part, when the head of the child is making its escape, or from the mal-application of an obstetrical instrument, as of the forceps, lever, &c. Occasionally, indeed, this accident has arisen from an outward wound, or from a spontaneous and gangrenous ulceration; and in addition to these causes, we may also mention, that a most complete destruction of the perineum has sometimes followed injudicious attempts to cure a fistula of the part. The extent of this injury may be very different; the perineum only may be lacerated; and this laceration may be either complete or partial, the anus and its sphincter remaining entire; or a central perforation may have taken place in the perineum, and we know that in some rare cases, the child has actually been forced through this perforation. In another set of cases, we find that the perineum escapes, and the recto-vaginal septum is lacerated, or destroyed; and lastly, both parts may be injured together. It might very naturally be supposed that, when the anterior part only of the perineum, or as it is called, the fourchette, is divided more or less, the accident would be much more easily remediable, than when the sphincter ani is involved; but the very reverse is often found to be true; for indeed, the re-union effected by nature in the first case is always incomplete, and the female is constantly annoyed, more especially if she be young, with a state of parts, in which the vulva is considerably prolonged backwards, and has lost much of its contractility.

At present our attention will be limited to the most severe accident of all; that in which the whole extent of the perineum has been lacerated, either with or without an injury of the recto-vaginal septum.

This accident seems to be irremediable by unassisted nature; the edges indeed of the wound may cicatrize, but the healing is never accomplished throughout its whole depth. It forms a very frightful calamity; the vagina and rectum are laid into one, and the discharges of the latter are often voided by the former passage. It is however by no means unfrequent, that the female becomes again pregnant, and her accouchement may be the more easy and rapid.

M. Roux knows an English lady who suffered a complete laceration of the perineum in her first labour, and afterwards gave birth to twelve children

successively, the accident remaining unrelieved all the time. He thinks it very probable that a great many females may be the subjects of this disgusting calamity, who are ashamed to avow its existence.

In the worst cases the state of the patient is truly miserable; the power of retaining the fæces, &c. may be utterly lost, and she is sometimes constantly harassed with the desire of evacuation, and before she has time to prepare for it, the vagina and adjacent parts may be in a moment deluged with it. She is thus forced to seclude herself from all society, and it cannot be surprising that her general health soon languishes and decays.

How gratifying must it be to a feeling surgeon to be able to rescue a fellow being from such distress! The earliest case on record, where an attempt was made by the surgeon to repair the loss of the perineum, is one which occurred to Guillemeau, the disciple of Ambrose Paré; the interrupted suture was employed, and the operation was quite successful. Subsequently to his time, the operation, although spoken of and recommended by some writers, was seldom or never attempted, until about the close of last century; when two French surgeons, MM. Noel and Saucerotte, performed it with complete success, by means of the twisted suture. Since that period it has been put in practice about half a dozen times in France; but in most of the cases, with little or no benefit to the patients. The English surgeons seem to have altogether neglected making any attempt in this field of surgery; and the Germans, though of late they have been ample in their descriptions of the best method of operating, have not contributed any essential improvements. M. Dieffenbach, of Berlin, has been most zealous in the cause; but with some of his opinions we cannot agree; he tells us that there is no chance of our being able to effect a complete union of a divided perineum, unless we previously make two parallel incisions along the sides of the vulva and perineum, in order that the parts may yield, and thus allow themselves to be kept in easy and natural contact. We shall see hereafter that this preliminary step is quite unnecessary, and ought therefore to be altogether abandoned.

It was the following very interesting case which suggested to M. Roux, that improvement in the operation, from which he anticipates the most agreeable results in future.

*Case* 1. A young lady, 22 years of age, came from Normandy to Paris in December, 1831, for the purpose of having M. Roux's advice respecting a division of the perineum.

She had been married to a medical man, when she was only 19 years old; and very soon after marriage had become pregnant, so that her accouchement came on just as she reached her 20th year. The labour was a painful and protracted one, and required the use of the forceps for its completion; unfortunately the perineum throughout its whole extent was lacerated, and the recto-vaginal septum, for about half an inch, was also torn. This distressing accident was now of two years' standing; and nature had done nothing to repair the injury. M. Roux, on examining the parts, found that the division was exactly in the median line of the perineum; its edges or lips were quite smooth, soft, and free from any callosities; so much so indeed that a person might have supposed at first sight that it was a congenital defect. The anus and vulva formed but one common outlet; and hence the condition of this interesting patient was most loathsome and afflicting. In order that the frequent desire of voiding the intestinal discharges might be lessened, she had long accustomed herself to take different preparations of opium; and the effect of these had been, at least in one respect, most soothing; for by regulating the doses she could retain the bowels in a constipated state, for almost any length of time; but notwithstanding this relief, the patient was so afraid of the desire ever coming on unexpectedly, that she quite secluded herself from all society, and her life was spent in wasting melancholy. Fortunately her constitution was decidedly

good, and the circumstance of her having acquired the power of confining the bowels, for almost any period which might be desired, was favourable to the success of any operation. The operation was performed in January, 1832, and as M. Roux had at this time no experience in such cases, he followed the practice which he knew had been recommended by most surgeons. The suture which he employed was the twisted one. After paring very carefully the edges of the cicatrized lips of the fissure, he transfixed them with four long needles, introducing these at least one inch from the edges of the wound, so as to prevent the risk of their being loosened by ulceration. No lateral incisions were made, because the part did not appear to be much stretched.

There was not an unfavourable symptom after the operation; the urine was drawn off by the catheter—the most strict regimen was enforced, and the bowels did not act. On the 7th day, M. Roux determined to remove the needles, as the appearance of the wound indicated a re-union throughout its whole extent; but, most unfortunately, this appearance was fallacious, and the adhesion was nothing but a simple agglutination. Two days after the removal of the needles, the wound was quite disunited, and the part, in the course of a short time, was in the same condition as it had been before the operation.

A second attempt was resolved upon and the patient, although naturally enough disheartened by the failure of the first, was too anxious to submit to any rational experiment, which promised a chance of relieving her from her miserable state.

M. Roux, from reflecting upon the first operation, was inclined to attribute its failure to the employment of the twisted suture, which, acting almost solely on the outer edges of the wound, did not keep up an accurate contact of the parts more deeply seated. That a union did not take place, therefore, no one need be surprised, especially when it is considered that the parts were continually kept moistened with the vaginal discharges.

The preliminary steps of the second operation were quite the same as those in the first. Four strong double ligatures were passed through the lips of the wound by means of curved needles, introduced on the one side from without inwards, and on the other from within outwards; and two pieces of bougie were then laid along the two edges, and accurately retained in their position, the one being received into the loops of the ligatures, while their loose ends were tied firmly over the other. Those who have employed the quilled suture, know that a wound always gapes somewhat after its application, and for a very obvious reason—because the pressure is exerted chiefly on the deeper part, and very partially on the outer edges. M. Roux, having calculated on this, took the precaution of inserting a single fine silk ligature along with each double one; and, when he had adjusted the quilled suture, he then tied these single ligatures as after ordinary operations. On the seventh day, the pieces of bougie, and, at the same time, all the ligatures were withdrawn, and the agreeable discovery was made, that a firm and solid union had taken place. Every day successively, for 10 or 12 days, the consolidation of the part became stronger and more secure, and the bowels, most fortunately, were not once disturbed until the 22d day after the operation; and, although the evacuation then was copious, and of a hard consistence, and accompanied with so much pain and forcing down, that it was necessary to assist its expulsion by pressure of the finger within the vagina, the reunion of the parts had by this time become so complete, that no injury whatever was sustained.

[It would certainly have been prudent to have obviated such a state of things by emollient enemata.—REV.]

At the period when this patient left Paris, there was still a small aperture of communication between the rectum and vagina, immediately above the sphincter ani; the fæces did not, however, pass through it, and M. Roux was informed afterwards that it quite healed up.

The result of the preceding case has been most gratifying; for it appears that the patient was speedily restored to the

enjoyment of connubial intercourse, and within five months after the operation became pregnant, and was, in due time, delivered safely of a full-grown child, the perineum escaping entire and uninjured.

*Case* 2. A girl, 21 years of age, was admitted into the Hospital de la Charité in March, 1833. She had become a mother nearly two years before, and so severe had been the delivery, that the perineum had been torn completely through.

Before undertaking any operation, M. Roux subjected her to a very spare diet for several days, in order that there might be little occasion for relief of the bowels. The steps of the operation were the same as we have described in the former case, and a similar after-treatment was rigidly followed. But, as it could scarcely be expected that the bowels would be quite so accommodating, in the present instance, as not to act until two or three weeks elapsed, and until the union might, therefore, be solidified, M. Roux, on the evening of the 6th day, ordered an emollient enema to empty the gut. On the following morning, the ligatures and bougies were removed, and it was found that a very satisfactory union had taken place. By the end of the third week, the adhesion was perfect throughout, except at the deepest part of the recto-vaginal septum, where a small fistula remained, and gave exit occasionally to intestinal gas; but this also gradually contracted, and had become quite minute, when the girl left the hospital.

The third case occurred in a woman, 29 years of age, mother of five children; her last accouchement had been lingering and severe, and the application of the forceps had induced a complete laceration of the perineum. M. Jacobson, of Copenhagen, and many of the most eminent surgeons in Paris, were present at the operation performed by M. Roux on this woman, and they had afterwards an opportunity of ascertaining the admirable cure that was effected.

The last successful operation was performed on a lady of rank, mother of three children, who had suffered from this distressing calamity for upwards of two years, but who had never mentioned its occurrence to any one, except her accoucheur, until she consulted M. Roux. The steps of the operation were quite the same as he had followed in the other three cases, and a most complete success rewarded his attempt.

The only instance in which he has failed occurred very recently; the patient died on the tenth day. The particulars of the case are worth recording.

The woman was forty years of age, and, in her, the destruction of the perineum had been the result, not of a difficult labour, but of an attempt which had been made by a surgeon to cure a fistula ani, communicating with the vagina. In consequence of this, the parts must necessarily have been more or less diseased, and, moreover, the patient laboured at the time under a complete prolapsus of the rectum: whenever she stood erect, or coughed, sneezed, or in any way exerted herself, the inverted gut was forced through the large gap in the perineum, forming a tumour as big as a man's fist, it might, indeed, be returned, but no means that had been used could keep it up permanently. When this patient entered the Hôpital de la Charité she was suffering from continued fever, accompanied with diarrhœa, distress of the abdomen, and other symptoms, which indicated some inflammatory disorder of the mucous surface of the bowels. During a period of four weeks, an appropriate treatment quite recovered her; and then, at her own earnest request, M. Roux proceeded to the operation. Unfortunately, on the third day afterwards, fever again set in, the abdomen became very tender, and the diarrhœa returned. The wound did not exhibit any appearances of the adhesive process, and the ligatures had caused ulceration. On the seventh day, the bougies and threads were removed, and, on the ninth, the disunion was complete; on the following day she died. It is quite reasonable to suppose, that the irritation of the ligatures reproduced those symptoms of intestinal disturbance which ultimately proved fatal; and M. Roux is

candid enough to avow, that perhaps he did not delay the operation for a sufficient length of time after the first illness.

In conclusion, M. R. offers some remarks as to the proper period after the occurrence of the accident for the performance of the operation. When it has taken place during parturition (and this is by far the most frequent cause,) it would not be judicious to attempt by art the union of the laceration for at least two or three months; the highly nervous and impressionable state of constitution in a parturient woman, the recent extreme distension of the parts, the copious flow of lochia, &c. are potent reasons against an early operation. Let the wound, therefore, be left to Nature's efforts, until these objections no longer exist, and let the medical man be satisfied with the gentlest treatment.

It will be found that, in most cases in which the operation is performed, a very considerable degree of dysuria takes place for some days; the catheter ought, therefore, to be carefully introduced twice, or oftener, a day. In every one of M. Roux's successful examples, the lips of the wound close to the anus, or recto-vaginal septum, were found to be disunited, although the rest had healed at the time when the ligatures and bougies were removed. There always remained for a week or more, at this part, a fissure, not unlike that which we make in operating for fistula ani; this fissure gradually, however, contracted, and the anus, into which a small oiled tent should be introduced, quickly recovered its healthy condition. The part of the wound most slow in healing is the recto-vaginal septum, and the progress, in some cases, will be found very tedious, in consequence of the extreme difficulty in preventing the passage of the fæces, or of the intestinal gases, from the gut into the vagina. But even this, in course of time, and with the assistance of the judicious surgeon, will contract more and more until it finally closes entirely.

The success which M. Roux has obtained, in a set of cases which are by no means unfrequent, and which, hitherto, have too often baffled surgical relief, encourages him to hope, that the operation which he has recommended will become as common, and as fortunate, as that of staphyloraphy, which he was the first to perform in 1819, although, since that time, no fewer than 65 cases have presented themselves to his notice.—*Journ. Hebdomadaire.*

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## XIX. PROFESSOR BOUILLAUD'S OPINIONS RESPECTING TYPHUS FEVER.

"It results (says he) from the 36 cases of typhoid entero-mesenteritis, which were lately treated in the wards of the La Charité, that the inflammatory affection of the lower part of the small intestines, and especially of the clusters of the glandulæ Peyeri, constitutes really and truly the fundamental and essential elements of the disease. In every instance, from the very commencement of the morbid phenomena, the local symptoms have clearly indicated the existence of such a phlegmasia; and the typhoid state has been developed under the influence of the entero-mesenteritis, in the same manner as we see it supervene in certain cases of severe phlegmonous erysipelas, of phlebitis, &c. It would not be more reasonable to consider inflammation of the intestinal follicles and of the mesenteric glands as a simple consecutive effect of the typhoid state, than it would be to regard a phlegmonous erysipelas, in the course of which typhoid symptoms were developed, as the result of these very symptoms. Such a doctrine would be, in truth, a 'contre-sens,' pathogenesis. We do not, indeed, deny that erysipelas may occur, in subjects already labouring under typhus fever; all that we contend for is, that the obverse case, viz. where the erysipelas is formed before the explosion of the typhoid symptoms, is by no means uncommon, and the scope of our reasoning is obvious when we assert, that the entero-mesenteric phlegmasia is of an erysipelatous character. To those who gainsay our doctrines, we confidently challenge them to adduce a single well-recorded and well-authenticated case

of acute inflammation of Peyer's, and of the mesenteric glands, which did not exhibit in its march and in its symptoms, local as well as constitutional, a most close analogy, if not a complete identity, with that disease, which has been most unfortunately designated by the appellations of fever, typhoid affection, &c. If it be true, as the Father of Medicine has predicted, that 'naturam morborum ostendit curatio,' another very potent argument may be adduced in favour of our pathological tenets, from the success of the remedial measures we adopt. These are eminently antiphlogistic. It may be said that some of the means, as the quinine and the chlorurets (which were used in a few of the cases in the hospital), are very far from being so; but who does not perceive that, at the period when we had recourse to these, the inflammatory affection had assumed what the ancients denominated a malignant, or rather a putrid character, and, therefore, required for its arrest the intervention of certain measures, superadded to those of a strictly antiphlogistic tendency? In the period of the malady to which we are referring at present, there is indubitably a focus of putrid decomposition, which, re-acting on the whole economy, induces great and important changes in the mass of the blood and other fluids, and to counteract the effects of which, a new and paramount indication arises—an indication which is best fulfilled by the use of the chlorurets, both externally and internally, and of certain tonics, especially quinine.

How agreeable it is to find out that the doctrines which we have taught and inculcated for so many years, are in accordance with the experience of some of the greatest men who have gone before us. The illustrious Sydenham, whose authority is so often misapplied and abused in the present day, has admirably pointed out the relations between the phenomena of malignancy or putridity, and certain sorts or shades of inflammatory action:—'Cujus de malignitate opinionis inventio, humano generi longe ipsa pyrri-pulveris inventione lætalior fuit. Cum enim hæ febres præsertim malignæ dicantur, in quibus intensioris præ cæteris inflammationis gradus conspicitur. The following case will illustrate my treatment of the typhus gravior.

A man was brought to the hospital in the second week of typhus fever, and of such an aggravated character were all the symptoms, that we quite despaired of saving him. The prostration was extreme—the tongue, lips and teeth covered with a black crust—breath very fetid—respiration exceedingly feeble—pulse minute, and very rapid—abdomen distended—slight diarrhœa—surface of the belly and chest exhibited several reddish patches and papulæ (eruption typhoide). The state of this patient positively forbad the employment of any depletory measures, and the only judicious indication seemed to be, to obviate the putrid symptoms by the use of the chlorurets in drinks, baths, and enemas. In three or four days there was a sensible amendment: a blister was applied on the calf of each leg, and ten grains of the sulphate of quinine sprinkled every day on the excoriated surfaces. The diet was gradually rendered more nourishing, and consisted of broths, soups, fruits, and weak wine and water. This patient ultimately recovered.

Let the preceding case satisfy my opponents, that the same treatment is not uniformly, and to the same extent, followed, in my treatment of fever, without regard to the character of the symptoms, or to the constitution of the patient. By a judicious combination of antiphlogistic and antiseptic remedies, 33 cases out of 36, admitted into our wards, were saved. Such success could not rationally be expected to result from a therapeutics, which inculcated the use of stimulants, purgatives, and emetics. At the commencement, indeed, of the malady, a purgative or an emetic may be administered with advantage; but, if they be of drastic severity, or are frequently repeated, the enteritic evil must necessarily be much aggravated. What confirms me in this opinion is, that I know that M. Trousseau has lately abandoned the practice of giving frequent doses of Glauber's salts

in dothinenteritis [the entero-mesenteritis typhoide] as recommended by his master M. Bretonneaux. At present he appears to be satisfied with the 'medicine expectante;' for he gives nothing else but the white oxyde of antimony, a substance very nearly quite inert; and yet he assures us, that his success of late has been very great in the treatment of cases of genuine typhus. No doubt much good may arise from merely abstaining from every thing positively injurious, and from not interfering with nature's own operations; but we think that even the late M. Dance, who was very sceptical as to the advantages of the common practice in fevers, could not have withstood such practical evidence as we have adduced in favor of the plan which was followed in the 36 cases, of which no fewer than 33 recovered."—*Journal Hebdomad.*

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## XX. HEARING, THROUGH THE APERTURES MADE BY THE TREPHINE.

While watching the effects of the operation of trephining, in several patients at the Hôtel des Invalids, M. Perier, an assistant surgeon, has discovered, or at least has imagined that he discovered, that they were all conscious of a sensation of a very unusual and constant noise in the part. We have seen the following experiments made at the clinique of the Baron Larrey, and in the presence of the philosopher M. Savart. The ears of a patient, on whom the operation had been performed, having been well stopped, while the rest of the head was left unincumbered and free, it was found that the sense of hearing was not at all affected, but that he could still perceive every sound quite distinctly, and the more so, when the sounds were directed perpendicularly downwards on the surface of the cicatrix. Even at a considerable distance sounds could be satisfactorily enough distinguished to enable the person to hold conversation with another. The beats of a watch held at a short distance from the cicatrix, were also made out.

Now if, while performing any of these experiments, the artificial aperture in the skull was well covered and compressed with the hand, while the ears remained plugged, the perception of sounds was immediately obstructed. —*Journal Hebdom.*

Are the preceding statements authentic?—ED.

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## XXI. PURIFICATION OF THEATRES OF DISSECTION, &c.

A special commission was lately appointed for the purpose of ascertaining the best method of disinfecting anatomical theatres of their stench and unwholesome effluvia. They tried a multitude of expedients, but found that the use of simple charcoal powder is much the most efficacious. Some of this powder was blended with and sprinkled over the putrid contents of the bowels one day, and on the next, it was always found that their offensiveness was in a great measure removed; and if the students rubbed their hands well with the charcoal before they washed them, all unpleasant smell was most certainly got rid of. This practice had been tried extensively at the dissecting amphitheatre of the La Pitié Hospital, and from its simplicity and efficacy is now constantly adopted there.

One great advantage of the charcoal is that it is a harmless substance, and that it does not even cause the steel instruments to rust, which unfortunately is apt to be the case, if the preparations of chlorine are used as a disinfecting agent.—*Revue Medicale.*

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## XXII. ADULTERATIONS OF FECULA AND THE MEANS OF DISCOVERING THEM.

It appears that of late years adulterations of this most important article of food have been becoming more frequent in Paris. To detect these frauds, M. Payen recommends that a portion of the suspected fecula be incinerated in a platina, or earthenware crucible, and the residue be accurately weighed. If the fecula be pure, however ill-washed, not more than a $\frac{1}{200}$ part of the whole

remains behind; and even much smaller the quantity will be found to be, if the fecula be exceedingly fine, and quite free from the least admixture.

In performing this experiment, the very slow combustion of the vegetable carbon may be quickened, by adding a minute quantity of nitric acid.

Another method, which is more commonly used, as it sometimes enables us to ascertain the proportions, as well as the nature of the adultering ingredients, consists in attempting to dissolve the suspected article. The quantity of undissolved residue gives very nearly the proportion of foreign matters; and as these usually are either chalk, plaster of Paris, bone-powder, &c. we cannot have much difficulty in arriving by analysis at an accurate knowledge of their nature.

Besides the two methods now mentioned, there is a third, which is the most simple and expeditious of all; it is the examination of the suspected flour with the microscope. We have only to sprinkle a minute quantity on a small glass disc, causing the light to be directed upwards through the thin layer. If the fecula be perfectly pure, we shall see only a number of granules which are rounded, diaphanous, white, and with edges somewhat shaded; if on the other hand, it has been adulterated with either of the three formerly mentioned substances, we shall discover among these granules many which are opaque, of an irregular and angular shape, and having a brown or other dingy colour. Having ascertained so much, we may then proceed to determine the exact proportion of foreign matter in some other way.—*Journal de Chimie.*

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## XXIII. Encephaloid Disease of the Kidney.

A woman 56 years of age, was admitted into the medical wards of the Hôtel Dieu, under the care of M. Caillard.

She was much emaciated, had a jaundiced hue of skin, and the expression of her features indicated some deep-seated and severe suffering. The abdomen was swollen to about the size of a six-months' pregnancy. Pressure, however, did not cause pain, except when made on the left hypochondrium, and then the patient complained of uneasiness in the region of the kidneys.

When the left hypochondrium was carefully examined, a large and compressible tumor might be discovered in the situation of the spleen, which it seemed to have pushed up against the diaphragm: it also extended downwards into the left iliac fossa, occupying all its extent. At the upper and anterior part, an indistinct fluctuation could be perceived; and from this symptom the case had been pronounced to be one of an encysted swelling; and this opinion was thought to be confirmed by the circumstance of the fluctuation becoming quite distinct in the iliac regions, so that a tap on one side was immediately felt by the hand applied to the other.

The question came to be, what was the exact situation of this supposed encysted tumor. Most of the physicians who had examined this patient concluded that the disease was seated in the left ovary.

M. Caillard, without designating the specific nature of the morbid change, was of opinion, that the kidney was chiefly involved. But it was not so much for this morbid enlargement, as for a troublesome diarrhœa which had afflicted her for the last three months, that this woman sought medical relief, when she was admitted into the hospital.

The following is the report of her health for some years before. At 48 years of age her catamenia had quite ceased, and from that period up to five months ago, her health had been moderately good; but losing her husband at that time, she was so much distressed in mind, that her extreme agitation seemed to be the cause of bringing on a violent uterine hæmorrhage, which greatly reduced her bodily strength: there was a relapse of this hæmorrhage in the course of another month; and it is from the date of this relapse, that she reckons the commencement of her present illness, whose earliest symp-

toms were sharp darting pains in the belly, a feeling of unusual weight there, and considerable difficulty of breathing, especially after meals. When the diarrhœa supervened, it speedily exhausted her little remaining strength, and she died soon after her admission into the hospital.

*Dissection.* About a quart of yellowish serum was found within the abdominal cavity; the small intestines had been pushed upwards and to the right side, and the descending colon also was situated higher than usual, evidently tilted up by the subjacent tumor. This diseased mass, invested with a large quantity of fatty matter, occupied the space, which we pointed out, when mentioning the symptoms.

Its shape was that of a kidney, although at least eight times as bulky as that organ. It was readily detached from the surrounding parts, except at its inner side, where the renal vessels were affixed, and also an appendicula, which terminated in a pouch of the size of a pigeon's egg. On cutting it (the appendicula) through, no cavity was found within; it had the appearance of a condensed cellular cord: this was therefore no doubt the ureter, and the terminating pouch was the pelvis of the kidney. When the whole of the morbid mass was removed, it was found to weigh nearly two pounds and a half. It had an ovoid form, was eight inches long, five across, and about four in thickness. A deep incision having been made from the convex outer to the concave inner side, exhibited the structure of the tumor. The natural appearance of the viscus was not recognizable at any part: the upper third consisted of a mass of softened encephaloid matter, occupying the place not only of the tubular, but also of the cortical substance.

It was probably to this deposit that the indistinct sense of fluctuation during the life of the patient, was owing. The central portion of the mass exhibited a greasy, yellowish substance, resembling lard which had been exposed for a long time to the air. The lower third was in a state of crude scirrhus, and exhibited several bloody cavities, "foyers apoplectiques," around which the scirrhus had become softened. The right kidney and urinary bladder seemed quite healthy; and the other abdominal and pelvic viscera were nearly natural.

*Remarks.* M. Andral has recorded in his work on Pathological Anatomy, two cases of encephaloid degeneration of the kidney; and Professor Bouillaud [Art. Cancer du Nouveau Dictionnaire] relates a case in which he found the left kidney enormously enlarged, extending from the spleen into the iliac fossa; and its entire structure converted into encephaloid matter. In this, and also in Andral's cases, the renal veins and the vena cava, for some extent, were filled with a pappy sanious matter, somewhat resembling in appearance the diseased substance of the kidney. The symptoms during life had been exceedingly obscure. M. Cruveilhier, in his great work on Pathological Anatomy, has described a case very similar to that which forms the subject of this paper. The abdomen was tympanitic; and in the left flank there was a large indolent swelling [which, however, the patient had never noticed himself,] extending from the lower false ribs into the iliac fossa. Five months before death, severe pains were felt round the umbilicus, and hæmaturia came on, which lasted more or less for a month; after which time the urine regained its natural appearance. A diarrhœa supervened, and put an end to life. The site of the diseased kidney was nearly the same as in our case; and the viscus when cut through, exhibited the genuine "cancer encephaloide," viz. the brain-like degeneration in some parts, and in others, cysts filled either with a limpid serum, or with a blackish fluid.

It is a remarkable feature of cases of extensive renal disease, (at least when only one of the organs is affected,) that in their early stages the urine very generally presents sufficiently obvious indications of some existent disease, whereas, in the ulterior stages, this secretion very often regains its natural appearance and qualities. The cause

of this may be found in the disorganization, as it progressively increases in extent, gradually abolishing the function of the affected kidney; and in the other one, which may be sound, or may be merely hypertrophied, performing the duties of both. We have already stated that not only may the ureter be involved in the morbid deposit, but that the renal blood-vessels are generally, in the progress of the disease, plugged up, either partially or entirely. The immediate cause of death in most cases of carcinomatous disease is perhaps chronic enteritis; and it is this state which induces the diarrhœa that so frequently proves fatal. The cancerous mischief, at first local, becomes at different periods constitutional, and not only one organ, but many may exhibit the inoculation of its incurable operations. It is singular to observe how very extensive and frightful the local disorganization has sometimes proceeded before any symptoms of general disturbance are developed. A boy, four years of age, but so large and well-formed, that he looked rather like a child of eight, was brought by his parents to the Hôtel Dieu, for a swelling which they suspected to be a hernia; but which proved on examination to be quite unconnected with any abdominal protrusion, and appeared to be some affection of the testicle, or of its membranes. It was first supposed to be a dydrocele, as the swelling was indolent, and communicated an indistinct sense of fluctuation, although no trace of transparency at any part could be discovered. The child's health seemed invariably good, his cheeks being ruddy, and his appetite always vigorous.

As there was a certain degree of uncertainty in the diagnosis, it was judged proper to puncture the tumor with a trocar to ascertain the nature of its contents. On withdrawing the instrument, nothing but a little blood flowed out; and the surgeon being, in consequence of this, apprehensive that the disease was of a more serious character, resolved to extirpate the testicle. The tumor, when examined after removal, exhibited the genuine appearances of an encephaloid sarcocele.—*Revue Medicale.*

## XXIV. Encysted Tumor situated on the Larynx—Treatment of.

A man, 58 years of age, consulted M. Dupuytren respecting a tumor situated over the thyrohyoid space, and which had existed there since he was a child. When the finger was introduced into the posterior fauces, a protuberance could be felt under the base of the tongue, and the opening of the larynx seemed to be considerably encroached upon by it. The tumor outwardly was of a lengthened form, extending backwards and to the right side, and communicated a distinct sense of fluctuation—the skin over it was sound and moveable. Its size was that of a large hen's egg. For nearly thirty years it had not exceeded the size of a walnut, but within the two or three last it had increased rapidly, and had occasioned very considerable inconvenience and distress; for the voice had become so feeble and imperfect, that the patient could with difficulty make himself understood. The respiration too suffered; and at times there were attacks of suffocating dyspnœa. M. Dupuytren pronounced the tumor to be of an encysted nature, stating, at the same time, that as it was congenital, it might possibly contain hairs. He dissuaded the extirpation of the swelling, and was content to make a puncture into it to evacuate its contents, and then to introduce a small piece of linen as a tent into the wound, in order that the secretion from its walls might find a ready exit, and that these might gradually contract and close together. However simple such an operation may appear to be, it is quite possible, considering the importance of the adjacent parts, that it may occasion some troublesome consequences, if inflammation was attacking the opened cyst. The frightful dangers of laryngitis and tracheitis, of œdema of the glottis, &c. have not unfrequently supervened on operations on the forepart of the neck.

The patient entered the Hôtel Dieu with the view of having the swelling lanced. The fluid first discharged was clear and of a yellowish colour; but afterwards it was of a thicker consis-

tence, and was found to contain a fatty micaceous matter, which Dupuytren considered as adipocire. When the whole contents had flowed out, the breathing of the patient became immediately much more free, and his voice regained its natural force and tone. No inflammation came on, and the subsequent suppuration was very trifling. The wound was healed in the course of a fortnight. The patient left the hospital quite relieved. The fluid may indeed re-accumulate, but the same operation will probably be again sufficient. —*Journal Hebdomadaire.*

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### XXV. FLAT-FOOTEDNESS—EVILS AND TREATMENT OF.

A case will best illustrate the inconveniences which may arise from the sole of the foot being unnaturally and uniformly flattened. A young man, 18 years of age, complained that he could not walk the shortest distance without suffering much pain in his feet, and being almost immediately quite fatigued. If the ground was at all uneven, the distress was the greater, indeed so much so, that he could not walk along the streets of Paris for even one quarter of an hour, without stopping to rest, and to relieve the uneasiness of his soles. On examining his feet, there was no appearance of excoriation, or of any great tenderness of the skin, but it was found that the left sole was flat from the heel forwards, so that the whole surface rested equally and at the same time on the ground; in short, the patient had "un pied plat." He was ordered a shoe made with a higher heel than usual, so that the pressure of the foot might rest on the heel and arch of the toes.

*Remarks.* The term "pied plat" has often been applied as a contemptuous epithet by the higher orders of society to the labouring classes, whose necessities oblige them so often to carry heavy weights, and to submit to other painful and annoying labours.

Now it is very generally true, that by far the greater number, or indeed almost all the cases of flat-footedness, arise from the causes now mentioned; while the person is yet young, and the bones have not acquired their perfect and unyielding hardness, whatever forces him to press the feet with more than ordinary firmness against the ground, as in lifting and in carrying heavy weights, and indeed in any fatiguing employments which oblige him to stand, may cause the deformity of which we are now speaking.

Fortunately the treatment of it is at once most simple, and very generally quite effectual. The shoes must be provided with heels, which are from one to two inches high, according to the extent of the evil; the soles ought to be of flexible materials, and not of such an unyielding substance as wood. This easy remedy will not only afford relief to the present inconvenience in walking, but if employed at an early period of life, will cause the foot gradually to assume the proper vaulted form, which will remain unchanged when the bones and ligaments have acquired all their firmness and solidity.

Such therefore is the ready expedient to remove the inconveniences of flat-footedness; and it is somewhat amusing to take notice that this infirmity, which is almost peculiar to the working class, is cured by the very means which those who used to taunt them, wished to retain exclusively among themselves; for formerly it was considered as a mark of high life to wear very high heels to their "chaussure;" and since these were generally made of a red colour, they acquired the name of "talons rouges."—*Journ. Hebdom.*

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### XXVI. DISLOCATION OF THE ASTRAGALUS—INCOMPLETE REDUCTION, AND PRACTICE OF M. DUPUYTREN.

A man, 47 years of age, a German by birth, and of a healthy constitution, fell down a flight of stairs one night, when he was drunk. His account, therefore, of the accident was imperfect. He immediately felt a severe pain in the left

ankle, and the foot on this side was found to be deformed, and all motion of it was exceedingly painful.

On the following morning, he was taken to M. Duputren's consultation, and the following is the report of the case when he examined it.

Foot turned inwards; immediately below the situation of the malleolus internus (which cannot be felt) there is a deep depression—external malleolus very prominent, and below and in front of it there is another projection, which feels unequal and angular; skin at this part much stretched, severely contused, and slightly excoriated. The foot cannot be moved in any direction—most severe pain when the gentlest attempt is made; swelling not very considerable. The foot appears somewhat shorter than the other, and it is carried a little backwards. No disturbance of the bones of the leg can be detected. The case was immediately pronounced to be one of dislocation of the astragalus forwards and outwards, on the calcareum. There might be also a diastasis of the two bones which form the mortice, that receives the astragalus; but this injury could not be made out.

But in what position was the astragalus placed? Did it retain the relative level of its surfaces, or had it become turned over upon itself? Dupuytren was not able to satisfy himself completely on this point.

*Prognosis and Indications of Treatment.*

This dislocation is always a very serious one, from the extreme difficulty, and even the occasional impossibility, of reducing it. In some cases, indeed, the reduction is effected with surprising facility, the extension being made with the hands alone. But such good luck is very rare, and often the best-directed efforts have failed in replacing the bone. When this is the case, one of two things must happen; either the patient remains a cripple, with his foot twisted inwards, and he is scarcely able to move upon it, or a violent inflammation of the parts may ensue, and oblige the surgeon to have recourse to extirpation of the dislocated bone. This Dupuytren has done in two cases, and in both with success—"the patients being perfectly cured, with a shortening, indeed, of the limb, and a slight limping in their gait; inconveniences which all admit to be preferable to those terrible accidents, which have followed the inflammatory constriction of the foot and leg when the luxation has been unreduced, and which have induced some surgeons to recommend amputation of the limb." Even the extirpation of the astragalus has, in some instances, been followed by fatal consequences.

M. Velpeau mentions a case which occurred to him. A merchant, while leaping out of his carriage, fell upon his left foot, and dislocated the astragalus forwards and outwards. There was also a fracture and wound of the integuments at the same time. The astragalus was removed without difficulty; but an emphysematous tumefaction of the whole limb came on, accompanied with alarming nervous symptoms, and the patient died on the fourth day after the accident.

In the present case, the reduction was attempted in the following manner:—

The patient being in the horizontal posture, a folded towel was passed round the left thigh, which was kept bended at a right angle upon the pelvis, and the ends were taken through a ring fastened in the wall, at the head of the patient, and entrusted to two assistants, who were desired to keep up the counter extension. To prevent the trunk moving, another napkin was carried under the shoulders, and made fast. A narrower one was then passed round the instep, crossed on the sole, and secured by several turns in different directions, some being passed behind the heel. The two ends of this napkin were intrusted to assistants, who were to make extensions, so directed by M. Dupuytren, who stood on the left side of the patient. The extension he ordered to be made at first from without inwards—then from within outwards, at the time when he endeavoured to replace the bones. Repeated attempts were made, but all in vain; the patient was, therefore, sent to bed, ordered to be bled to twenty-four ounces, to have

a warm bath, hot poultices to the foot, and two grains of opium to be taken as an anodyne at bed-time.

On the following day, the man was again taken to the amphitheatre, and the reduction re-attempted, but without success; the foot, indeed, yielded somewhat, and the depression above the outer ankle was considerably diminished. The employment of the hot poultices was renewed; and in the course of a few days, when the inflammatory swelling had subsided, the apparatus which M. Dupuytren uses in fractures of the fibula was applied on the outside of the limb, in order to force the foot as much as possible into its natural direction; but the patient could not bear the extreme inconvenience which it occasioned.

When he left the hospital, he had got rid of all pain in the joint; but the foot was turned inwards, and the toes were pointed downwards.

*Reflections.* The astragalus is so strongly secured by short and very powerful ligaments to the os calcis, and the motion of one bone upon the other is so trifling, that it has been only within late years that a dislocation, such as occurred to our patient, has been accurately recognized and described.

Sir A. Cooper mentions the extreme rarity of the accident, and the great difficulty which is generally experiencdd in reducing it. He recommends the employment of pullies to effect the extension, and gives tartrate of antimony, in nauseating doses, for the purpose of weakening the resistance of the muscles.

Mr. Cline was in the habit of recommending the following method of attempting the reduction. The thigh should be bent at a right angle on the trunk. While the assistants kept up a uniform extension of the leg, he grasped the metatarsus and protuberance of the os calcis with his two hands, and, putting his knee against the outer ankle, gradually forced the displaced bone back into its place.

After the reduction, a long splint was placed along the fibular side of the leg. This manœuvre appears to us to be preferable to the method adopted by Dupuytren.

The total number of cases of this dislocation which have occurred in M. D.'s practice amounts to twelve. In some of these, the reduction was effected, as has been mentioned already, with great ease; while, in others, all attempts have utterly failed, and the patients have remained lame when they would not submit to the extirpation of the displaced bone.

It is worthy of notice, that in the three or four cases in which M. Dupuytren has extirpated the astragalus, he has always found the bone fairly turned over upon itself, except in one, when it was merely displaced.

We cannot, after learning this fact, be much surprised that the reduction is so difficult, or even altogether impracticable. But, even when the astragalus has not become reversed, we shall find that the configuration of the articulating surfaces of this bone, and of the os calcis, suggests a very obvious explanation of the danger of their forcible disjunction and separation. The posterior part of the astragalus forms a claw-like process, which, when carried forwards, rests between the two articulating prominences of the upper surface of the os calcis, and indeed, is so confined there, that it can scarcely move.

Any attempt, therefore, to force it back into its normal situation has often the effect rather of pressing the point of the process against the spongy substance of the os calcis, than of lifting it out of the groove in which it has become lodged.

But the question naturally arises, how comes it, that in some cases of this dislocation, the reduction is accomplished with the greatest ease?—Dupuytren accounts for this by supposing that all the connecting ligaments have been so torn and detached, that a much freer motion than is common between the two bones is permitted.

When, however, the ligaments are only stretched and not ruptured, then they act on the displaced bone, as girths, or ties, confining it in its new situation.

The reduction may be easy when the luxation is not complete, or when the hooked process of the astragalus is not thrown so far forwards as to slip into the furrow above described, but merely rests upon the posterior articulating surface of the os calcis.

As to the extirpation of the displaced bone, in irreducible dislocations, it appears to us to be decidedly preferable to the continuance of the distortion and annoyance inevitable from the accident. In the cases operated upon by Dupuytren, the patients did well, and had afterwards serviceable limbs. After the removal of the bone, the gap thus produced is gradually filled up, and the extremity of the tibia becomes so united with the upper surface of the os calcis, that the limb, although shortened, is quite able to support its share of the weight of the body.—*Journal Hebdomadaire.*

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## XXVII. SPINA VENTOSA OF THE HAND.

A youth, 18 years of age, presented himself at the consultation of the Hôtel Dieu, to have the advice of Dupuytren about two hard tumours, situated on his left hand; one on the second phalanx of the fore-finger, and the other on the corresponding metacarpal bone. The first of these had been gradually coming for nine years, the other appeared two or three years subsequently. No cause could be assigned for them. The patient's general health was good, and he said that he never had had syphilis.

The tumour on the finger was of the size of a hen's egg, exceedingly hard and unyielding—the investing integuments seemed quite healthy, although much on the stretch. The other tumour was smaller, and did not exceed the size of a hazle-nut; but it was equally hard. Neither of them caused severe or frequent pains, and the chief inconvenience was from their size, and the consequent deformity which was occasioned. The opinion which M. Dupuytren formed of these tumours was, that they were either exostoses or spinæ ventosæ.

"I consider them (said he) as specimens of one of these two diseases, more probabably of the latter. The disease is seated in the cavity of the bone, and this cavity is in all likelihood filled with a cancerous substance, which has distended the osseous parietes. This will soon force its way through the barrier, and attack the surrounding soft parts; and whenever this takes place, the case will from that moment assume a more serious character. As to the treatment, there cannot be a difference of opinion on that score; extirpation is the only safe remedy. But here an important question arises for our consideration. As all cases of this description are necessarily involved in some degree of ambiguity before the operation, ought we to extirpate only one, or both of these tumours at the same time? It is to be remembered, that the amputation of any one of the metacarpal, and also of the metatarsal bones, is a much more serious operation than the removal of any finger or toe. However small be the portion of a metacarpal or metatarsal bone which is removed, the danger of the operation is very considerably increased.

The advice of some authors, to saw away a portion of their projecting ends, in all amputations of the first phalanges, for the purpose of making a deeper flap of integuments, is most pernicious; and indeed, its very converse ought to be invariably followed; viz. that the metacarpal and metatarsal bones should be meddled with as little as possible, and only when there is a positive necessity for such interference. Some surgeons have had their minds so haunted with the dread of relapses, in all cases of diseased fingers and toes, that they have recommended that amputation should always be performed at a considerable distance from the seat of the malady; and many a hand, or at least a large part of it, has been cut away quite needlessly, and therefore injuriously."

On the contrary, Dupuytren has generally made it a rule in his practice, never to amputate more of the hand, or of the foot than was absolutely necessary; and certainly never to saw away

any portion of a metacarpal or metatarsal bone, unless it was decidedly diseased.

In the present case, he determined to remove only the finger at first, in order that he might have an opportunity of ascertaining the correctness of his diagnosis before he meddled with the second tumour. The operation was quickly performed and the wound healed speedily. On examining the diseased phalanx, it presented the following appearances. The bone was much dilated and formed a thin globular and friable shell; when cut through, its cavity was filled up with a greyish-white matter, having the consistence of lard, and deposited in a number of small cells or hollows, formed by osseous lamellæ or spiculæ, as delicate and thin as needles. There were no traces of a medullary membrane.

This, therefore, was a case of genuine spina ventosa; a disease which, although sufficiently well characterized, has very often been confounded with other affections of bone, which have scarcely any feature in common with it; many an exostosis has been described by respectable authors under the appellation of spina ventosa; and this, again, has not unfrequently been confounded with osteo-sarcoma.

The distinguishing character of spina ventosa is the secretion from, and often the complete conversion of, the medullary membrane of the affected bone into a new diseased substance, which, as it accumulates, causes the bony cavity to expand, until it forms a rounded protuberence, whose walls thus become thin, and almost like those of a shell. The contained substance is usually of a gelatinous or lardaceous consistence; sometimes, however, it has a chalky character, is of a greyish or yellowish colour, and has a fungoid appearance.

The medullary canal of a bone becomes expanded, as far as we know, only in those cases where a secretion or a growth is thrown out from the medullary membrane, or where this membrane itself becomes swollen and diseased; in proportion as the fungus in the one case increases and the swelling in the other becomes greater, the bony walls are pushed outwards, until they form a visible tumour outwardly. We have a good illustration of these remarks, in the history of the fungus in the antrum Highmorianum. True it is, that the maxillary bone never exhibits that appearance of an osseous network which we see in one of the long bones, when affected with spina ventosa; but to account for this difference, we should look to the difference of texture of the bones, and to the presence of the marrow in one, and the absence of it in the other.

Some surgeons have been inclined to consider spina ventosa as a disease rather of the substance of the bone, than of its medullary membrane; and they have, in confirmation of their views, alluded to the very expansion or dilatation of the medullary cavity which invariably is present; this, they believe, would not be the case from the mere presence of a diseased growth within, for the growth, in their opinion, would rather cause ulceration of the bony parietes, and make its appearance outwardly, as we observe in cases of fungus of the dura mater; but we should recollect, in reference to such cases, that the fungus is not situated in a medullary cavity, and, moreover, that it is subjected to constant movements, from the pulsations communicated to it from the cerebral arteries.

On the whole, we are inclined to suppose that all cases of genuine spina ventosa, originate in a fungoid disease of the medullary membrane of the affected bone.

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## XXVIII. M. BOUILLAUD ON FOLLICULAR ENTERITIS, GASTRO-ENTERITIS, OR TYPHUS FEVER.

The term "follicular enteritis" is to be preferred to the one formerly in use, "gastro-enteritis," on account of its more accurately indicating the nature of the existing lesion; for in many cases there is no inflammation of the stomach, the disease being limited to the mucous membrane, and especially the follicular apparatus of the small intestines; and besides, we see every day examples of

genuine gastro-enteritis, unaccompanied with the symptoms of typhus fever. M. Bretonneau has lately introduced the term "dothinenteritis," or furuncular enteritis, and, although we cannot, with strict propriety, admit the furuncular character of the disease of the intestinal glands, the term is not a bad one. Follicular enteritis has the same meaning, and is more simple in its enunciation. The bizarre appellation "of ileo-dicliditis," in allusion to the seat of the disease in the ileum and ileo-cæcal valve, does not at all express the nature of the diseased change, but rather its mere habitat. M. Bouillaud is in the habit of employing the terms of adynamic or putrid enteromesenteritis, and, in order to localize the chief seat of the morbid change, adds occasionally a special, instead of the general prefix, thus, adynamic ileomesenteritis, &c.

Eighteen cases occurred in the service of M. B. at the La Charité, during the Summer months, and of these, fifteen took place in men, and the remaining three in women. This striking difference is, no doubt, attributable to the more debauched and irregular lives of the former, and also to the circumstance of far more men coming to Paris, from the country or elsewhere, for subsistence; for, indeed, the greater number of the cases we see here, are in those who have resided but a short time in the city. Out of our eighteen patients eleven had been only four months in Paris—four from six to twelve months—one fifteen, and another twenty months resident there. They were all under 28 years of age. The season of the year, viz. during the months of June, July, and August, is that when the follicular enteritis is usually most frequently seen. It is always a difficult, and often an impossible thing, to trace the exciting cause of fever to any one specific agent or influence; and we shall be generally correct, if we enumerate, not one, but several, such as recent arrival from the country, laborious and excessive work, unwholesome and acrid food, debauchery, exposure to the inclemencies of the weather, depression of spirits, &c.

The premonitory symptoms are, a greater or less prostration, general uneasiness, anxiety, want of appetite, feeling of coldness over the surface, thirst, headach, and in many cases some degree of purging and nausea, or even vomiting. The headach becomes more and more severe, accompanied with noises in the ears, appearance of flashes of light before the eyes, vertigo, stupor, so that questions are answered slowly and with reluctance, and, in many cases, with delirium. The features are void of animation, except when inflamed during the delirious paroxysms; the eyes become considerably sunk, the nose is sharpened, and the lips are black, and coated with a dark crust. The skin is always hot and dry—the gentlest perspiration is ever a most favourable symptom; for in all the worst cases, there is a constant aridity of the surface, and only towards the latter stage it is bedewed with an offensive sickening moisture. In some cases there is an eruption on different parts of the body; this may be either papular, exanthematic, or pustular. A very characteristic symptom of this fever, when severe, is the position or decubitus of the patient in bed—he lies in one attitude, seemingly unconscious of all around him, and, if he moves, it is rather like the rolling of a senseless mass than the voluntary act of an animate being. Complete coma, convulsions, twitching of the tendons, &c. are always very unfavorable signs. The tongue is generally smooth, dry, and red at the point and along the edges, in the early stage; a filthy, yellow-coloured, cheesy-looking crust covers it, and, in the more severe cases, so completely parched is it, that it has the appearance of having been broiled. The lips, teeth, and mouth are invested with a filthy brown or black sordes, and the breath is offensively disgusting. The thirst is always great—sometimes excessive. The gastric irritation is by no means observed in most cases; thus, in our eighteen patients, six only experienced vomitings; and except in one case, there was not any tenderness of the epigastric region when pressed upon. Pressure on the abdomen, especially over the cæcum and ascending colon, produced pain in ten cases. In

fourteen, there was well-marked meteorism, or inflation of the bowels; and the degree of this symptom was usually proportionate to the severity of the case. The involuntary discharge of the urine, especially if this be muddy, ammoniacal, and fetid, always prognosticates great danger. The almost uniform coexistence of pulmonary disease deserves our serious notice; in fifteen of our cases there was acute bronchitis, indicated by a dry sibilant, or mucous sibilant râle; in two, severe cynanche existed, and in one a double pneumoniæ, which caused the death of the patient. The biliary apparatus was not much affected in the majority of the cases. Four of the patients died, and the following are the most striking necroscopic appearances found.

Serosity under the membranes of the brain; substance of the brain more highly injected than usual; consistence nearly normal. The stomach, in all cases, presented at one or more points arborizations of minute vascularity; the texture of the mucous lining was generally softened, and thinner than in health. The duodenum was but little affected. On examining the ileum, there were found, sometimes even from its very commencement, patches of distinct eruption, or of an intense vascularity, with intermediate portions of healthy surface; but these phenomena were always more distinct as we approached its lower or cæcal extremity; at first, or highest up, the glandulæ Peyeri and aggregated follicles were merely swollen and enlarged; then here and there they were found to be ulcerated, the little ulcers having thickened edges, and the subjacent cellular tissue being denuded; as we proceeded lower down, the glandulæ Peyeri became more developed, and, around them, the single or isolated follicles were converted into aphthous-like ulcerations, with red, and even bloody borders; towards the extremity of the ileum, the gut was found to be actually riddled with these ulcerations, which were surrounded with the soft, pulpy, and inflamed mucous membrane. In one case, the surface of the ileo-cæcal valve, and also of the cæcum, exhibited these last-decribed appearances. The mesenteric glands, adjoining to the diseased portions of intestine, were red, hypertrophied, and softened. Most of the other viscera, as the liver, spleen, heart, &c. presented more or less ramollissement of texture, so that they were easily crushed between the fingers.

As to the *treatment*, it was all in cases of an antiphlogistic tendency—moderate, but not repeated venesection; the application of leeches upon the epigastric and cæcal regions (the *average* number required for each patient was between sixty and seventy in all, or about 16 at four diffent times); in four cases, cupping was employed to subdue the bronchitic affection. In nine of the cases, blisters were used, sometimes to the thighs, at other times to the calves of the legs. In ten cases, the solutions of the chlorides (which were first recommended in 1826, by M. Bouillaud, as valuable remedies against the intestinal disease, and the consecutive alteration of the mass of the blood), were employed, either by the mouth, or in injections, or, lastly, mixed with poultices and applied to the abdomen. The bed-clothes, also, of the patients were freely sprinkled with them.—*Journal Hebdomadaire.*

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## XXIX. FUNGOID TUMOUR OF THE DURA MATER—EXTIRPATION.

Nicolas Guerin, 59 years of age, presented himself in the consulting-room of the hospital, for advice respecting a tumour on the crown of his head. It had existed for several months, was gradually increasing in dimensions, and every now and then gave rise to severe pains. It was of a rounded shape, as big as a small walnut, not at all sensitive on pressure, and free from any pulsatory movements. As the skin over it was sound, M. Berard was puzzled to determine exactly its nature.

The ioduretted pommade was ordered to be rubbed daily upon the swelling, and the patient was directed to return to the hospital after a week or two. But as the frictions had no effect, Guerin consulted some doctor in the country; and he, supposing it to be an

abscess, plunged a lancet into it; but, instead of pus, a quantity of blood only flowed out. The hæmorrhage was with difficulty stopped, and he applied for admission into the Hôpital St. Louis. The tumour at this time was of the size of a small egg, and, in other respects, presented nearly the above-described appearances, but the pain had become more frequent and severe. In consequence of the complete absence of all cerebral symptoms, M. Jobert pronounced it to be a cancerous tumour, seated in the substance of the scalp, and advised its extirpation. The tumour was first exposed by a free incision through the integuments, and then carefully dissected from its lateral attachments down to the bone; and only then it was discovered, that it fairly penetrated through several openings in the parietal bones into the cavity of the cranium.

M. Jobert was satisfied by removing all the mass which projected outwardly, and by afterwards rasping the affected bones. The remaining portion of it could be distinctly seen through the diseased openings, alternately raised and depressed by the pulsations of the brain. We have previously said, that there was not the slightest pulsation before the operation; and, indeed, the absence of this symptom had much increased the difficulty of arriving at an accurate diagnosis.

No serious accident occurred after this imperfect operation, and the pains were even abated. In the course of a few days, the fungoid growth began to rise out of the cranial apertures, and speedily to grow over them, so that they were no longer to be seen at the bottom of the large suppurating wound. The pulsatory movements were still, however, very distinct, and bubbles of air oozed out round the edges of the tumour. As it increased in size, the pulsations became less obvious; but still there were never, at any time, symptoms of cerebral disturbance.

The operation was performed on the 1st of June; and, on the 19th of July, the patient left the hospital of Saint Louis, and returned to that of St. Antoine, under the care, once more, of M. Berard.

The report of his case, at this time, states that there is a swelling on the crown of the head, as large as a man's fist, and extending forwards on the forehead, laterally into the left temporal fossa, and about an inch to the right of the median line of the vertex. It projects about two inches above the surrounding skin, is about four inches across in one direction at its base, and about three inches and a half in the other. It is partially divided into two side halves by a deep ulcerated groove, from which a copious suppuration flows out, and on its surface may be perceived several fistulous openings; the probe, introduced along one of these, can be conveyed to a considerable depth, even into the interior of the cranium, and, at some points, the bone may be felt exposed and rough. The remainder of the mass is covered with the integuments, which are moderately healthy. The isochronous rising and falling of the mass, with the cerebral pulse, are abundantly distinct.

Considering all these signs, the nature of the case could not possibly be mistaken; it was too evidently one of fungoid disease of the dura mater. (M. Berard was at this time ignorant of the appearances which had been discovered during the former operation.) One circumstance, however, was calculated to cast some degree of uncertainty upon the opinion which had been formed, and that was, the entire absence of all cerebral disturbance, as of hemiplegia, stupor, convulsions, loss of memory, and so forth, even when firm compression was made upon the tumour. Surgeons may, therefore, draw a useful lesson from the history of this case. M. B. resolved to follow the advice given by Boyer, in his Treatise on Surgery, to remove all that portion of the cranium from which any part of the tumour sprung out, in order that its base may be got at, and entirely extirpated, along with that part of the dura mater to which it adhered.

The general health of the patient was very good, and had not suffered from either of the preceding operations with the knife. There were indeed some enlarged lymphatic glands on the sides of the jaw and of the neck; but the mere presence of these was not deemed a

sufficient contraindication to the treatment proposed; for every day we see examples of such enlargements disappearing, when the disease which has produced them is removed. Some might have supposed that the large extent of cranial surface requiring to be taken away by the saw, and the consequent free exposure of the brain, was a strong objection to the operation; but M. Berard called to mind numerous cases on record, in which very ample portions of the cranium had been detached without the loss of life.

Every thing therefore being considered, he determined upon the use of the trephine. The diseased mass was first very freely exposed, by ample incisions through all the thickness of the scalp, and the bone was made bare all round; the trephine was then applied, and six separate crowns of bone successively removed, an interval of bone of about one line's thickness or perhaps rather more, being left between each crown, and nearly the same between the diseased openings, and the near side of the circles: these narrow partitions were then nipt away with cutting pliers. The operation having lasted already for three quarters of an hour, it was deemed proper to defer the completion of it until the following day, for fear of exhausting the patient's strength. The six trephinings had exposed only one-third of the circumference of the tumor; and it was therefore probable that other eight or six applications of the instrument might still be necessary. The wound was dressed lightly, and the patient put to bed; he passed the night tolerably well, and did not express having suffered much pain. On the morrow the operation was resumed, and it was found absolutely necessary to apply the trephine ten times, before the whole mass could be exposed; the bones perforated were the frontal, two parietal, the left temporal and the great ala of the left sphenoid; and the number of perforations on each were, five on the frontal, four on the right parietal, five on the left parietal, one on the squamous plate of the temporal, and one on the sphenoid; in all 16 perforations. The opening thus made was of an ovular shape; its longest diameter being antero-posterior, and measuring five inches; the transverse one measured four inches and five lines. The exposed dura mater seemed healthy except at the hinder part, where it presented several tuberculous granulations of a cancerous appearance: and it was found that the inner table of the skull had been worn away there. The next step of the operation was to detach a portion of this membrane. It was laid hold of, with a dissecting forceps, and a cut made into it on each side with the knife; these cuts were then enlarged with blunt curved scissors, in a semicircular direction, and made to stop at the falx before and behind: one of the branches of the middle meningeal artery sprung at this time; but the hæmorrhage was arrested by pressure with a piece of agaric. The whole circumference of the tumor was now detached, but as it still adhered behind in the middle to the falx, it was necessary to cut this and consequently also the longitudinal sinus across; very little hæmorrhage ensued, because the cavities of the sinus, and also of the extremities of the dorsal cerebral veins were found to be almost quite obliterated.

The whole mass was now easily detached, and when this was done, the surface of the convolutions of the brain invested with the pia mater and arachnoid coat was exposed to the view, alternately heaving and falling isochronously with the actions of the heart. But scarcely a few moments had passed when the patient became quite insensible, and he was seized with convulsions of the trunk and limbs.

Pressure was immediately made upon all the exposed surface, (these symptoms arising, it was believed from the loss of support, to so large a portion of the brain) and fortunately with the effect of very speedily removing this alarming state. A circular piece of agaric was laid on the surface, and over this, pledgets of lint, and then several compresses; and the whole was firmly secured with a few turns of a roller passed over the crown of the head and under the chin, by means of which a moderate degree of pressure was maintained.

This second operation lasted for nearly an hour and a half, and during its performance, a considerable quantity of blood had been lost. The pulse, however, although at the time when the patient was convulsed, it had become quite imperceptible, soon afterwards regained its former force, and the rest of the day and the following night were passed without any accident, or any cerebral disturbance. But towards morning the patient became delirious; his features were much altered, he had lost his speech, he gnashed his teeth, and every now and then there were twitchings of the limbs. A small bleeding from the arm, and the application of iced-water to the head were ordered; the pulse, however, gradually became weaker, and death supervened at seven o'clock in the evening, 34 hours after the operation.

*Examination of the Tumor.* It sprung from the outer surface of the dura mater, and had forced its way outwardly through a large irregular opening, whose edges slanted inwards at the expense of the inner table of the bones. Its substance was somewhat like that of the brain, and might therefore be denominated to be cancero-encephaloid. The inner surface of the dura-mater was sound throughout.

*Sectio Cadaveris.* The substance of the cerebral convolutions was found to be inflamed, red, softened, and adhering very firmly to the investing pia mater. Between this membrane and the arachnoid, over the greater portion of the upper surface of the brain, and extending downwards and backwards as far as the cerebellum, there was a pseudo-membranous exudation. The cervical glands, although enlarged, did not exhibit any traces of encephaloid disease. The other viscera were sound.—*Gazette Medicale de Paris.*

## III.

## CLINICAL REVIEW.

I. REMARKS ON SOME FREQUENT FORMS OF VENEREAL ULCER. By Mr. HENRY JAMES JOHNSON, formerly House-Surgeon to the Lock Hospital.

There is a form of venereal ulceration of which I have witnessed numerous examples—which may therefore be considered as not uncommon—which displays decided and peculiar characters—which runs a marked and not indefinite course—which readily yields to one method of treatment—and, so far as I have seen, resists most others.

I am unacquainted with a good description of this venereal ulceration, and the one I am about to offer is taken from the cases I have noticed. Before I enter on it, I shall venture to indulge in a few introductory remarks.

The venereal disease has been frequently studied in an unsatisfactory manner. The majority of writers would seem to have laboured to establish or to overturn a theory. Their principal aim would appear to have been to invent some ideal, or to erect some actual sore into the true type and symbol of syphilis, and to view the various ulcers, the existence of which even they could not deny, as only the legitimate or the illegitimate offspring of that parent stock.

Mr. Hunter fancied or found a sore which he seems to have considered the genuine syphilis. Why he selected that ulcer for that honor it would be idle, perhaps it would be vain, to inquire. The example of Mr. Hunter has not been lost. His successors in this department of science have been blinded by his authority, and confounded by his error. Those who have supported, and those who have opposed him, have been equally affected by his perplexing hy-

pothesis. On the one hand we distinguish a large class of writers who have toiled to prove that mercury is unnecessary, even for the true Hunterian chancre. On the other hand we perceive as numerous a body contending for the utility, indeed for the necessity, of mercury in this case, but yielding the other forms of ulcer, as indeterminate and bastard maladies. It would probably be invidious to particularize authors or their works, but a moderate acquaintance with the latter is sufficient to convince a reflecting and unprejudiced reader that, in one way or other, they are greatly influenced by the doctrines of John Hunter.

It is difficult for any one who enjoys opportunities of observing the venereal disease extensively, to shut his eyes to the obvious fact, that if the Hunterian chancre is to be deemed the only genuine syphilis, that malady has almost ceased to exist. Yet secondary symptoms are sufficiently frequent to shew that if syphilis is gone, specific sores are left in its place, followed by the same consequences, and requiring the same treatment.

When we turn from the doubtful field of speculation to contemplate the objects that nature presents, we are struck at first by their apparent intricacy. In a hospital devoted to the reception of patients affected with the venereal disease, the crowd of cases perplex the observation and confound the judgment. The varieties of sores appear interminable, and probably out of a lengthened series none exhibit features of identity. The discordance between ideas derived from reading and the facts displayed before his view, commands the attention and excites the reflection of the observer. That discordance is too striking and too irresistible to permit him to avoid the inevitable conclusion, that a practical, to say nothing of a profound, acquaintance with this singular disease, can only be obtained by personal labour and personal investigation.

The extensive application of the inductive method of philosophy to medicine has been of comparatively recent date. Yet its triumphs have been splendid and must be permanent. The striking advances of the present day in physiology, pathology, and theraupeutics, have been solely, or almost solely, due to the cultivation of the inductive method.

That method is remarkably adapted to the investigation of a malady like syphilis. The observer has numerous and complicated phenomena displayed before his view. Patient observation and rigorous induction can alone enable him to unravel their intricate arrangement, and discern their actual relations. Like the clue of Ariadne, it leads him through the maze.

There are sores of different descriptions. Some appear as individuals—some are arranged in clusters, or produced in numbers. Some are small—some large. Some are attended or succeeded by an indurated basis—others display but an inconsiderable tumefaction. Some present a healthy aspect—others are yellow on the surface—and others exhibit all the shades of difference that separate a simply sloughy appearance from that of actual sphacelus.

The cicatrices differ like the sores. One resembles that of an ordinary ulcer. Another is the seat of redness and of induration. A third evinces an incessant tendency to excoriation. A fourth re-ulcerates and forms again a sore.

The ulcers of the throat are as complicated and as various as the primeval sore. On the one hand we remark a trifling vascularity of the tonsils, the palate, and the pharynx. On the other, we contemplate a frightful ulcer, destroying, rather than occupying, these important parts. Between the two extremes are a yellow ulceration inclined to be deep, or surrounded with thickening—a superficial white ulceration with enlarged and indurated tonsils—a brown and sloughy ulceration of these bodies—and other, less important, diversities of character, to which it would be useless to allude.

The affections of the skin may occupy almost all the recognized classes of cutaneous alterations. The papula—the efflorescence—the stain—the vesicle—the small and large pustule—the

crust—the irregular thickening—the tubercle—and scale, are constantly presented in the wards of the Lock Hospital.

The man who is calculated to throw a brilliant or steady light on the venereal disease, is one who is patient in observing, cautious in concluding—who is sceptical of even what he sees, and admits nothing which is not established by the strictest rules of evidence.

His field of observation must be ample. He must watch the sore in all its stages—observe its varying features—and mark the cicatrix that it leaves. He must note the secondary symptoms that succeed (*if* secondary symptoms follow)—their character, their combinations. He must study the influence of diet and of medicine, especially of mercury. He must note with accuracy that which he observes with care. A few years consumed in such observation and reflection would enable a man of moderate ability and good acquirements to confer a great benefit on himself, the profession, and the public, by the general dissemination of sound opinions and judicious practice.

In the mean time, those who are possessed of the means of observation may occupy themselves without discredit, in drawing attention to special facts, and in laying before their professional brethren, in journals and in societies, the conclusions they have formed or the cases they have seen. Actuated by this feeling, which I hope is not improper, I have ventured to request attention to the sores I shall now proceed to describe. Perhaps an apology is due for the length of the preceding observations. I might say with the learned and ingenious Selden, "had my time been longer my remarks would been shorter."

*Situations.* The sore to which I have alluded is usually remarked on some portion of the inner prepuce. Perhaps the most frequent situation is the angle, or that part where the skin is reflected from the prepuce to behind the corona of the glans.

Next in order of liability is the orifice of the prepuce, when naturally narrow.

The side of the frænum is often affected; the inferior surface of the penis, and contiguous scrotum, are occasionally implicated.

I shall not describe its history in women.

It is sometimes complicated with gonorrhœa, but commonly it exists independently of this affection.

When seated *at* the angle, or *on* the inner prepuce, it frequently produces inflammatory phymosis. This is commonly developed within the first week.

When situated at the orifice, it causes phymosis also, but not in a similar manner. In this case the phymosis is the result of induration occasioned by the sores, is developed later, and is usually disposed to continue longer.

The sore is seldom single. It may commence in a solitary manner, but others always form, and they often become confluent.

It appears in its commencement as a pustule or a vesicle, beneath the epithelium. In a very short time, perhaps in a few hours, the cuticle at the apex is absorbed, and a small yellow surface, about the dimensions of the head of a pin is presented.

This increases in size till it reaches the diameter of a split pea, which perhaps it may exceed. The surface is then yellow and cupped—the edge is thin and slightly undermined—there is trifling surrounding redness—and some subjacent tumefaction.

Four or five days are commonly consumed in attaining this condition. It may remain stationary for many days more, but usually the following changes supervene.

Granulations, at first minute, but afterwards distinct, appear upon the surface. They are spongy and yellow. They often surmount the level of the skin.

The edge of the ulcer becomes distinct, and a vascular line is observed within it. This is the precursor of cicatrization.

Previous to the completion of the latter, the sore is generally florid, fre-

quently raised, and almost always accompanied with induration.

*The ciatrix* is red and generally hard.

The sore is invariably circular, but many forming near each other, always become confluent, and produce an irregular ulcer.

The duration of the sore appears indeterminate. The ulcer may remain, if medical treatment is withheld, for an almost indefinite period. At all events I am unacquainted with its limits.

A distinguishing feature of these sores is their number. Whilst one is passing through the stage of granulation, another is making its appearance.

This constant succession of fresh sores, or fresh crops, continues till the final cure.

Sometimes the sores, instead of arising as separate vesicles, appear as one continuous, sloughy-looking vesication, occupying the whole circumference of the angle.

The sore is contagious in a higher degree. Opposite surfaces infect each other. The lodgment of the discharge is certain to give rise to it. I have recently had under my care a married couple. The husband infected the wife.

*Bubo.* Bubo is frequently noticed. It sometimes proceeds to suppuration, but with care this unpleasant consequence may be commonly prevented.

*Secondary Symptoms.* I have found ulceration of the throat, and eruptions of three characters succeed this sore.

In one patient at the Lock, I remarked a yellowish white ulceration of the tonsils—attended with an eruption of papulæ pustulating at their summits.

In another there was yellowish ulceration of the tonsils, and eruption of small and scaly spots, approaching to the small psoriasis.

In a third the eruption was the syphilitic lepra.

I cannot enter on the reasons which lead me to point these out as peculiarly apposite examples of true venereal eruptions.

*Treatment.* The first stage of this sore is one of inflammation—the second is that of granulation and repair. They display different phenomena—require different treatment.

The remedies at first should be antiphlogistic—purging—rest—starvation. Locally bread poultices and tepid washes, or cold and saturnine lotions.

I usually prescribe three grains of calomel at night, and the senna draught on the succeeding morning, accompanied, if necessary, with salines during the day.

As soon as granulations have appeared, and the red line, denoting a tendency to cicatrize, has become developed at the margin, the treatment must be altered.

Moderately increase the patient's diet. Diminish the purgation—commence a course of mercury—use stimulating applications to the sore—and touch it every second or third day with the lunar caustic.

I commonly order three to five grains of blue pill twice daily, and the infusion of roses and salts every second or third morning.

The best local applications, are, *ablution* of the parts twice daily with the Bate's red wash, and the constant application of the calamine cerate.

This plan should be continued for a fortnight, or thereabouts, when, probably, the purgative may be discontinued, and certainly the sarsaparilla may be usefully prescribed.

The patient *must* go through a course of mercury to ensure his safety. Five grains of blue pill twice daily are probably, the utmost quantity, and four or five weeks the time that he requires.

I shall now take the liberty of relating some cases illustrative of the main features of the foregoing remarks. The points of most importance and the most characteristic of this species of sore, are—plurality in number and succession in appearance—disposition to fungous granulations—their contiguous properties—their secondary symptoms—and the influence of treatment. The cases which follow are intended to display and to elucidate these characters. The fear of appearing to indulge in repetitions, compels me to curtail their number and extent.

CASE 1. *Plurality of Sores—appearing in Succession—Cure.*

A respectable man, aged 25, applied to me on the 14th of January last.

The inner prepuce was generally red and inflamed. On the left side were several sores—three rather larger than a pin's head, clustered—one, about the size of a split-pea, solitary; on the right side was one of about the dimensions of two split-peas.

The surface was yellow, and just attaining the level of the surrounding skin—the edges were thin, sharp, beginning to be raised, and slightly red.

Tongue whitish—bowels rather confined—pulse frequent—skin warm.

He had had connexion with a stranger nineteen days before I saw him. He had noticed the sores for seven days. He had had no medical treatment.

*Hyd. sub.* gr. iij. *hâc et crast. nocte.*
*Haust. sennæ seq. mane.—Lot. nig.*

21st. In a day or two after last report the yellow appearance of the sores diminished, and minute red granulations appeared. These have increased, and the sores have become elevated *above* the level of the neighbouring skin; they have also become confluent both on this and on the right side. Their surface is more florid and their edge red. A fresh sore, about the size of two pins' heads, has appeared on the right side; it is cupped and yellow.

*Pil. hyd.* gr. v. *o. n.*
*Infus. ros.* ℥. *Mag. sul. o. m.*
*Lot. rub. vice. Lot. nigræ.**
*Argenti nitras ulceribus elevatis.*

24th. Sores healing—duller vascularity around, and appearance of thickening in the surrounding skin and cellular membrane. On the right side the yellowness has not yet been superseded by vascularity, nor the hollowness by elevation.

*Rep. haust. Mag. sul. o. a. m.*
*Argent. nit ulc. elevatis.*

28th. Bowels rather relaxed.

*Rep. Pil. bis die, addendo Ext. conii,* gr. ij.
*Omr. haust. purgans.*

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* The Lotio Rubra is the Camphorated Wash of Bates.

*Arg. nit. o. 3tio die ulc. elevatis.*
*P.* ℥ *Lot. et Cerat. calaminæ.*

30th. Sores on left side healed—each with a white thickened edge immediately surrounding a minute central cicatrix—some subjacent and surrounding tumefaction and induration. On the right side, the sore is almost healed, with the same thickened edge, and immediately within that, a vascular healing line. Gums scarcely affected, health good. *P.*
*To take some meat for dinner daily.*

Feb. 3. Rather a disposition to fresh superficial ulceration of sores—looks pale and thin—pulse frequent—bowels a good deal purged.

*Adde Opii,* gr. ½ *pilulis.*
*Dec. Sars.* c. ℥ij. *bis die.*

10th. Sores healed, with the exception of one no larger than a pin's head, in the angle on the left side. In site of all some thickening. Health much improved. He requires some salts occasionally to retain his bowels in good order.

*To take half a pint of porter daily.*

13th. Sore last noticed healed—fresh superficial ulceration on both sides. Gums not sore. I may state, once for all, that these fresh ulcerations always occurred in the following manner. The inner prepuce presented some redness. In the centre of this, a minute elevation of the cuticle was noticed, which, under the lens, appeared to be a vesication. If this was observed on one day, a small yellow sore had occupied its situation on the next. In the early period of the case, this yellow sore increased in size, grew cupped, and was attended with a thin, sharp edge. Then minute red granulations appeared, giving the yellow sore the appearance of having been sprinkled with a few minute grains of Cayenne pepper. The next stage was universal granulation, of a yellowish-red tint, elevation, and, under the influence of treatment, cicatrization, accompanied with surrounding and subjacent induration.

But the fresh ulcerations that arose in the advanced condition of the case differed, in these respects, from the foregoing type;—all the stages were accelerated; the little yellow ulcer appeared sooner—was less cupped—

attained less size—presented no fungus—healed with rapidity—and left trifling induration. The application of the nitrate of silver on the second or third day seemed to stop the progress of the sore, and induce its immediate cicatrization.*

I need not pursue the details of the case, as it passed progressively and steadily for a cure. The local treatment was pursued with regularity, until no fresh ulcerations were presented, a period of about a week from the last report. The mild mercurial ointment was then introduced, and retained between the prepuce and the glans. The blue-pill was persevered in till the last day of February when it appeared no longer requisite, and was finally discontinued. The sarsaparilla was taken for ten days after the completion of the mercurial course.

Before the mercury was given up, the induration of the sores had disappeared. The cicatrices were neither tumefied nor red, but some general redness of the inner prepuce remained. The health was good—as good as it had been before the contraction of the malady; the patient, indeed, affirmed that it was better. The gums were gently, and but gently, affected.

CASE 2.—*Plurality of Sores—Bubo—Cure.*

W. Morris, æt. 19, a groom, was admitted an out-patient on the 17th Aug. 1833.

There were numerous sores in the angle, and on the opposed surfaces of the prepuce and corona—they were chiefly disposed near the frænum on each side. The sores were generally yellow, irregularly circular, extending through the cutis, rather flat upon their surface; the edges were abrupt and undermined. The discharge was profuse and purulent. There was much swelling and some inflammation of the prepuce.

A bubo of some size, and rather tender, in the right groin.

Looks pale—tongue moist—bowels rather confined.

He has had the sores for six weeks. The complaint began as a simple sore on the right side of the frænum; the others have appeared in succession. He seems to have taken little or no mercury.

*Hyd. submur.* gr. iij. *hâc nocte.*
*Inf. ros.* c̄ *Mag. sulph.* ʒj. *bis die.*
*Lot. nigra ulceribus.*

20th. Sores cleaner.

*Ung. hyd.* ʒj. *o. n.—Mag. sul. p. r. n.*
*P.* c̄ *Lot.—Omr. alia.*
*To eat some meat daily.*

24th. Frænum ulcerated on its surface—sores still yellow, not granulating, discharging copiously. Looks pale—pulse weak.

*P. To take half a pint of porter daily.*

26th. Looks pale, and rather anxious—skin warm, pulse very frequent. Præputial sores granulating—those on the opposed glans still yellow, irregular, excavated.

I felt convinced that I had committed an error in putting the patient on mercury and on tonics so soon. From his aspect, and the pyrexia he displayed, I apprehended that some unpleasant consequence would supervene. I ordered him to discontinue the mercury, the meat, the porter, and place himself on the following plan.

*Hyd. sub.* gr. iij. *Opii*, gr. ¼ *hâc nocte.*

*Mist. Camph.* ʒj. *Tinct. hyos.* ʒss. *Vin. Ipec.* m. vj. *M. ter die sum.*

28th. Better in all respects—pulse quiet—skin moist and cool—anxious aspect gone. Vascular healing edge to *all* the sores. *P.*

30th. Sores improving, two of the smaller being healed. No pyrexia.

*Pil. hyd.* gr. v. *o. n.*
*Infus. ros.* c̄ *mag. sul. o. a. n.*
*Lot. rubra et cer. calamin.*
*Omr. alia.*

Sept. 3d. Old sores healing with rapidity. Two or three fresh ones, of the characters now so frequently noticed,

* This description may be considered unnecessarily prolix. Observation, to be accurate, must be minute; and it is not possible to convey in a few words the distinctions of small particulars.

have appeared upon the inner prepuce. *P.*

7th. Almost all the old sores are healed. Those which arose last are in the state of granulation.

9th. One fresh sore to-day—others all but healed.

14th. Gums scarcely affected.

*Rep. pil. bis die et haust. bis in hebdomadâ tantummodò.*

*To take some meat daily.*

Oct. 5th. Sores quite well for some days. There is still slight induration and redness of the inner prepuce.

19th. The appearance of the prepuce is perfectly natural. His health is good, and he has gained flesh.

*Dec. sars. c.* Oss. *quotid. in hebdomad. Omr. alia.*

This patient has remained free from syphilitic symptoms. He has lately been under my care for gonorrhœa.

The preceding case displays a difficulty of no mean character in the treatment of venereal sores. I allude to the determination of the time when mercury or tonics can be usefully commenced. As a general rule, it is well that the stage of granulation shall begin, and that all inflammatory symptoms have subsided, before the former is exhibited. The general condition of the patient is the guide for the selection of the latter. Perhaps there is no part of the management of syphilis, in which the incautious or the injudicious surgeon breaks down so often and so fatally as in this.

It will be noticed that caustic was not used in this instance. It is of consequence to recollect this, because it has been said that caustic or excision are indispensably required to remove these sores. The former is always beneficial, sometimes absolutely necessary. The latter I would neither submit to, nor inflict.

Case 3.—*Plurality of Sores of the Inner Prepuce and Glans—Mercury insufficient, unaided by Caustic, &c.*

I was requested by my friend, Mr. Roney of Suffolk Place, to meet him in consultation on the following case. I will state the condition of the patient when we saw him, relating the previous and the subsequent particulars in the words of Mr. Roney, who has kindly sent them for that purpose.

The patient, Mr. W. G., was twenty years of age, and of a delicate constitution, having suffered much from eruptive complaints. I had the pleasure of seeing him with Mr. Roney on the 20th of February last.

The prepuce naturally covered the glans. On retracting it several sores were disclosed on the inner prepuce *near* and *at* the angle—there were also some on the opposed glans.* Those on the inner prepuce were circular or oblong, yellowish, elevated, with spongy granulations. Those on the corona and the glans were yellow, scarcely raised, and with a thin sharp edge. On the left side of the glans, near the orifice of the urethra, was one circular solitary ulcer, of the size of a small split-pea, cupped, with a thin undermined edge, and totally void of granulation.

The glans and the inner prepuce were generally red and slightly inflamed. The discharge from the sores was purulent and copious.

No bubo.

The mouth was under the influence of mercury: the bowels were freely open.

He was first seen by Mr. Roney on the 27th of December. The following is that gentleman's account of the case.

"Eight days previously to my seeing him he began to feel a slight itching about the glans on the fourth day after connexion. He was not uneasy, and did not examine it until the succeeding day, when he observed a pimple deeply coloured, with a head which had the appearance of being about to burst. When I saw him there was a small sore not quite the size of a split-pea, situ-

* When one of these sores is found on the inner prepuce, another is tolerably sure to appear on the part of the corona or the glans exactly opposite. The one surface infects the other. The whole progress of these sores shews the highly contagious or infectious properties of their surface and their discharge.

ated in the fold between the glans and prepuce, rather inclining more towards the former; its edges were elevated, and there was considerable inflammation around. He complained a good deal of pain, at times much more severe than others, as if he frequently received a sting, and there was a profuse discharge of glairy, semi-transparent matter. He was ordered a five-grain calomel pill, to be taken that evening; to follow it up with a draught, composed of inf. sennæ, in the morning, and to apply a small piece of lint to the sore.

Jan. 5to. The sore had slightly enlarged, extending towards the prepuce, and had become more hollow—its edges were hard to the touch, and the inflammation around became circumscribed—the discharge still continued equally profuse. He was placed upon the following treatment:

℞. *Pil. hyd.* ʒj. *Pulv. opii*, gr. iij. *in pilulas duodecim, sumat unam mane nocteque.*

To refrain from wine and beer, but not to confine himself wholly to the house. The sore to be washed twice a day with tepid water, and a small piece of lint to be applied to it. There was scarcely any alteration during the remainder of the month. About the 28th, there was greater difficulty in drawing back the prepuce, and he complained of severe shooting pain in the direction of the frænum. On examining it, three elevated, small, fungous sores were discovered at the edge of the prepuce, and on the body of the glans a hollow circular sore, differing in character from the others. The same plan of treatment was continued, and I directed the patient to syringe frequently during the day with warm water. On the 10th of February, he was seen by Mr. H. J. Johnson, when the mercurial fœtor was perceptible, and the appearance of the penis was nearly as just before described, having undergone very little alteration within the last fortnight.

He was then ordered to continue the blue pill, and occasionally to have a mild aperient—to take a wine-glass of the compound decoction of sarsaparilla twice a day—the *elevated* sores to be touched every third day with the nitrate of silver, and a piece of dressing to be inserted between the prepuce and glans, to absorb the discharge, which continued as profuse as at the commencement of the complaint. Under this treatment, the sores gradually assumed a healthy tendency, the hardness of the edges began to subside, and the application of the caustic reduced the fungous granulation to the level of the surrounding skin; the hollow sore of the glans became filled up by healthy granulations, and the constitution of the patient, which had suffered considerably during the exhibition of the mercury, has rallied again. On the 14th of March, three of the sores had completely healed, and the fourth, on the glans, is fast approaching to cicatrization."

These cases are sufficient to display the essential characteristics of the sore, and the influence of treatment. More might be added; but their sameness would tend rather to disgust the reader than to illustrate the subject. The complication with phymosis may be easily imagined, and, as no peculiarity is necessary in its management, examples may be readily dispensed with.

It was mentioned in the general account of the affection, that sometimes it commences in the form of an extensive vesication. Of this I have only seen two examples, and both are so interesting as to merit their narration.

CASE 4.—*Extensive Vesication in the Angle, ending in numerous Sores—Cure.*

I was summoned, last Autumn, to see a gentleman, aged about 21, who lived in the neighbourhood of the Lock Hospital, where I then resided as house-surgeon. The prepuce was inflamed and much swollen, hastening, apparently, with rapidity to phymosis. The angle presented throughout one extensive inflamed vesication, not containing serum, but dirty yellow lymph. It conveyed to the mind the impression that arsenic, or some acrid poison, had been applied to it and retained. The part was extremely painful.

There was an enlarged and painful gland in the left groin.

There was fever, with a loaded tongue.

He had slept with a stranger two nights previously. He had noticed the affection on the morning of the day on which he requested my attendance.

*Calomel at night, and senna, with the sulphate of magnesia in the morning—saline medicines, with antimony—tepid ablution and bread and water poultices—repose in bed—starvation.*

This plan was continued for five or six days, when the bubo had *quite* disappeared, and the inflammatory swelling was gone. The cuticle of the angle, and the lymph beneath it, had separated from the cutis, leaving an extensive series of sores, very slightly cupped, more or less confluent, yellow on the surface, with abrupt, thin, and slightly excavated edge.

*Pil. hyd.* gr. v. *o. m.*
*Inf. ros.* ℥ *Mag. sul. o. m.*
*Lotio nigra ter die. Broth.*

In four or five days more, granulation had appeared, with the red line of cicatrization round the margin.

*Pil. hyd.* gr. v. *bis die.*
*Inf. ros.* ℥ *Mag. sul. o.* ℥*tio mane.*
*Lot. rubra et Cer. calaminæ. Fish.*

In the course of a few days, the diet was augmented to mutton-chop for dinner; and the sores, which were now elevated, were touched with caustic.

In about three weeks from the commencement of the complaint, the sores were perfectly healed, and no induration of moment was left. His mouth was very gently affected. He was directed to continue the blue-pill for ten days. This he did, although he quitted town on an expedition to the coast in his yacht. On his return he took some sarsaparilla. His health has continued good, and he had no unpleasant consequence from the complaint to this time, March, 1834.

This case is extremely satisfactory. The prevention of impending bubo and phymosis—the rapid cicatrization of the sores, and the perfect nature of the cure, are strong evidence of the propriety of the treatment. It was the first case of the kind which I had witnessed, and it made a considerable impression on my mind.

The succeeding cases are intended to display the secondary symptoms that follow this species of sore.

Case 5.—*Plurality of Sores—cured without a Mercurial Course—Syphilitic Lepra.*

I have unfortunately lost my notes of this case. The circumstances are, therefore, presented from memory. They are accurate, though imperfect.

A young man was admitted into the hospital, under the care of Mr. Briggs. The prepuce naturally covered the glans, but it still admitted of retraction. He had sores on the inner prepuce and corona, of the nature of those in the former cases. He was treated by mere purgation and the antiphlogistic regimen. Caustic was also occasionally applied. The sores healed, though very slowly, and the patient left the hospital, after a sojourn of two or three months within its walls.

In a month or two after his dismissal, he returned one morning to shew himself to me, on account of an eruption. It was the circular, brownish-red blotch, flat, attended with very slight interstitial deposition in the cutis; in short, what has been termed the syphilitic lepra. The tonsils were vascular and thickened. It was evident that the patient had genuine secondary symptoms. I advised him to come into the house. He hesitated—went away—and we never subsequently saw him.

Case 6.—*Plurality of Sores on the Inner Prepuce—Combination of Roseola, Papula, and small Pustule—Mercury—Cure.*

Thomas Paradise, a servant, æt. 20, admitted July 11th, 1833, under the care of Mr. Briggs.

Several sores of the character of the preceding on the inner prepuce; thickening of the latter on the right side of the frænum, on which, at the angle, there is a flat, elevated ulcer. On the right side of the body of the penis, two recent ulcerations, yellowish, cupped. On the glans, one of these sores in its commencement; a small pustule, or turbid vesicle, beneath the epithelium.

Scrotum red, corrugated, with numerous pustules not yet ulcerated.

*Eruption.* A roseola-like efflorescence, disseminated on the chest. On the back and on the limbs, but chiefly on the former, an eruption of very small pustules, or of papulæ, pustulating at their apices. Some of these are fading, and leaving a small, brownish, cicatrix-like stain.*

*Throat.* Soft palate vascular and tumid—whitish-yellow, but not deep ulceration of the tonsils.

Gums tumid from mercury—health pretty good—pulse rather frequent and full.

*History.* This is a confused one.

A pimple appeared in the angle, on the right side of the frænum (where the present elevated sore exists), about five months ago. It formed a sore, which healed about six weeks ago.

The present ulcerations appeared three weeks ago.

The eruption was first noticed between two and three months ago. It has since continued.

The throat has been affected for one month.

The treatment hitherto has been this. Between two and three months ago he took six pills, which did not make his mouth sore. Three weeks ago he went to the Marylebone Dispensary, where he took 18 pills, and used the black wash.

*Infus. ros.* ℥ *Mag. sul.* ʒj. *bis die.*
*Lot. nigra. Therma. Broth.*

25th. Fresh sores are appearing—their surface is excavated and yellow. Tonsils more ulcerated. Feels very weak.

*Solut. quinæ,* ℥ *Tinct. cinch.* ʒj. *bis die.*
*Lot. rubra et Cer. calaminæ. Meat.*

Aug. 2d. Feels stronger. Ulcerations not healing—granulations and elevation in some—fresh ones still appearing.

*Infricetur Ung. hyd. fort.* ʒss. *o. n.*
*P.* ℥ *Solut. quin.*

26th. He has continued the treatment without alteration. The sores are quite healed, but there are still elevated cicatrices, with induration. The eruption is fading fast. Mouth sore, but not too much so.*

Sept. 5th. Cicatrices almost healthy. Eruption quite gone—throat well—health good.

He continued the mercury for a week or ten days longer, when he was dismissed, cured.

CASE 6.—*Diffused Vesication in the Angle—Yellow Ulceration on the Tonsils—Spots of small Psoriasis upon the Body—Mercury—Cure.*†

Marmaduke Richardson, æt. 17, an upholsterer, admitted Aug. 11th, 1833, under the care of Mr. Briggs.

Surface of the inner prepuce at the angle, and contiguous corona of the glans covered with a sort of vesication, or something intermediate between it and slough. It is apparently produced by lymph effused between the cuticle and cutis. Behind the corona, on the left side, this has been separated, and left an elevated yellowish sore.

Slight bubo in the right groin.—Health good.

*History.* The complaint has existed for two or three months, and began soon after connexion. It commenced as "a

* The venereal pustule leaves a cicatrix, the papula only a stain. But often the papula pustulates at its summit. The casuist has then to determine, if the reliquiæ be or be not a cicatrix.

* The mercurialist and his opponent may inquire what is meant by this expression. The patient had *not* a spitting-pot, but his gums were tumid and whitish, and the salivary secretion was *rather* increased.

† This is an instance of the secondary symptoms that succeed the vesication ending in elevated sores. I have related a case of the primary affection occurring in the person of a gentleman. (Case 4.) That and the present are the only examples that have come under my observation.

white speck." He has not used any remedies, or consulted any surgeon.

*Infus. ros. c Mag. sul. bis die.*
*Lot. nigra—Broth.*

26th. Case in statu quo.

*Pil. hyd.* gr. v. *o. n.*
*Rep. haust. semel die tantum.*
*Lot. rubra, &c.*

31st. Sores nearly healed.

Sept. 12th. Ulcerations healed, but induration left. Spots of yellow ulceration have appeared on the left tonsil—more general yellow ulceration on the right. It is deep in neither.

*Therma. Garg. boracis.*
*Omr. Haust. mag. sul.*
*Ordinary diet.*

Sept. 26th. An eruption of small circular, yellowish-brown, scaly spots has appeared on the various parts of the surface of the body.* The ulceration of the throat is healing.

*Infricetur ung. hyd.* 3ss. *o. n.*
*Omr. pil.*

Oct. 24th. He has pursued the plan of mercurial inunction. The ulceration of the throat has healed—the eruption has faded, disappeared, and left only a faint brown stain unaccompanied by scaliness. The mouth is and has been gently affected. The health is excellent.

In about ten days more the inunction was discontinued, the stain having subsided into a very faint yellowish tint, which at times was almost imperceptible. The tonsils had healed with some thickening, but the latter was passing away.

He was dismissed cured. He reapplied at the hospital on the 10th of last January with a fresh primary infection. He had continued free from any symptoms of the former malady.

These are all the cases of secondary symptoms from this form of sore it has fallen to my lot to witness. They prove that those secondary symptoms are not constant in their character, for, out of three cases, there was one example of lepra—one of papula—one of small psoriasis.

Perhaps I may be suffered to allude to another form of ulcer, which appears to possess some degree of affinity to the one I have described. I have called it in my note-book the EXCORIATION-SORE. The poverty of the nomeclature is probably too obvious.

It is usually observed upon the inner prepuce, immediately contiguous to the angle—sometimes it is seen at the angle itself—sometimes on the glans—not unfrequently on the outer prepuce, at a little distance from its free extremity. It may exist at the same time as separated sores, in all these situations. But this is comparatively rare. This sore may be single, or they may be several; when the latter is the case, they may or may not appear in succession.

The main feature of the sore is *not* that it is cupped or that it fungates, but that it conveys to the mind the idea of its being an excoriation. It is small and circular, situated merely on the surface of the cutis, and never, so far, as I know, penetrating through it. Perhaps this result might follow irritating or injudicious treatment.

It commences, apparently, as a small red spot, scarcely exceeding the size of a pin's head. With the aid of a lens, the cuticle is observed to be raised in the centre, and very minute vesication exists. In a few hours, or in one or two days, and the period is always brief, the elevated cuticle is abraded or absorbed, and the sore has assumed its distinctive character. To that character reference has been made already. The sore is minute, circular superficial, wearing the aspect of an excoriation. The colour of its surface is commonly intermediate between yellow and red. The surrounding skin is frequently inflamed in a slight, but a perceptible degree.

The duration of the sore does not seem to be determinate. It heals by a small scab, but this may appear in the

* I have called this in my note-book the "small psoriasis," as it bears a more close resemblance to the psoriasis guttata of Willan and Bateman than to any other *named* eruption. It would be out of place here to detail the circumstances that prove this to be a genuine venereal eruption. It follows with much certainty the condylomatous sore.

course of a few days, or not for a much longer period.

The cicatrix is generally red—sometimes, when placed on the outer prepuce, indurated. Yet the induration is always slight.

I am not aware whether secondary symptoms do or do not succeed this sore. I am disposed to think that, in general, they would not; but circumstances seem to render it probable, that in some few instances they would. This is but conjecture.

The sore is occasionally concurrent with gonorrhœa, and those individuals appear most disposed to it, whose prepuce naturally covers the glans.

The treatment is doubtful, indeed experimental. Sometimes general remedies are successful—at others they are powerless, and mercury is necessary. Black wash is the most eligible local application, combined with an occasional employment of the lunar caustic.

The diagnosis between this and the former kind of sore is unattended with difficulty or with doubt. *That* is cupped in the first instance, is elevated afterwards—*this* is neither the one nor the other; *that* has all the features of an ulcer—*this* wears the aspect of excoriation; *that* heals, like a sore by granulation and by cicatrization—*this* disappears in a scab.

The distinction between it and the herpes præputialis is not so obvious, yet still it is commonly decisive. In the herpes præputialis, as figured and described by Bateman, the characters and the progress are extremely different. In order to place this in a clear point of view, a quotation from that author, containing his description, may not be deemed impertinent.

"The attention of the patient is attracted to the part by an extreme itching, with some sense of heat; and, on examining the prepuce, he finds one, or sometimes two, red patches, about the size of a silver penny, upon which are clustered five or six minute transparent vesicles, which from their extreme tenuity, appear of the same red hue as the base on which they stand. In the course of twenty-four or thirty hours, the vesicles enlarge, and become of a milky hue, having lost their transparency; and on the third day they are coherent, and assume an almost pustular appearance. If the eruption is seated within that part of the prepuce, which is in many individuals extended over the glans, so that the vesicles are kept constantly covered and moist (like those that occur in the throat), they commonly break about the fourth or fifth day, and form a small ulceration upon each patch. This discharges a little turbid serum, and has a white base, with a slight elevation at the edges; and by an inaccurate or inexperienced observer it may be readily mistaken for chancre; more especially if any escharotic has been applied to it, which produces much irritation, as well as a deep-seated hardness beneath the sore, such as is felt in true chancre. If no irritant be applied, the slight ulceration continues till the ninth or tenth day nearly unchanged, and then begins to heal; which process is completed by the twelfth, and the scabs fall off on the thirteenth or fourteenth day. An affection very similar in every respect sometimes occurs on the labia pudendi.'

When the patches occur, however, on the exterior portion of the prepuce, or where that part does not cover the glans, the duration of the eruption is shortened, and ulceration does not actually take place. The contents of the vesicles begins to dry about the sixth day, and soon form a small, hard, acuminated scab, under which, if it be not rubbed off, the part is entirely healed by the ninth or tenth day, after which the little indented scab is loosened, and falls out." *P.* 338, 3*d Edition.*

It must be owned that these sores have some affinity with the herpes præputialis. They occur, for the most part, in persons whose digestive organs are deranged, and who are subject to slight or chronic inflammation of the inner prepuce. On this account it is always proper to commence the treatment with the use of those measures which correct disorder of the organs of digestion, restore and improve the secretions, and benefit the health. But the cases I

shall introduce are sufficient to prove that this will not always effect a cure, and the cautious and judicious surgeon, who does not feel inclined to sacrifice his patient to his preconceived ideas, will sometimes be constrained to exhibit mercury.

Case 1. *Excoriation-sore, healed in a few days.*

A medical pupil applied to me in the latter part of October, labouring under a state of excitement and alarm.

The inner prepuce was red and had an irritable aspect. On its left side were one or two small and circular sores, pale, quite flat, situated merely on the surface of the cutis, and conveying to my mind the idea of their being the result of excoriations.

The digestive and urinary organs were deranged. The gentleman was pallid and extremely nervous.

He had had these sores for four or five days, and they appeared very shortly after connexion. He had taken blue-pill once or twice daily, in conseqence of his alarm.

I understood that he had had such sores before—that he had "*thrown in*" mercury——and that ulcerated buboes and protracted illness had resulted.

*I prescribed five grains of blue-pill every night. Infusion of roses and salts every morning. Low diet—repose—ablution and lint.*

In three or four days he returned. The sores were nearly healed—the irritable state of the inner prepuce was gone—the health was greatly improved. I diminished the quantity of blue-pill to three grains at night—prescribed a draught containing the carbonate and sulphate of magnesia in the morning—a lotion of sulphate of zinc—and better, but moderate diet.

He returned in the course of a week. The local complaint was well—the general health was comparatively good.

No other symptoms afterwards occurred.

Case 2.—*Excoriation-sore healed in a week.*

W. W——h, Esq. aged 21, applied to me on the 14th November last.

On the left side of the inner prepuce, near the angle, was a small superficial sore, as from excoriation. It was flat, yellowish, not cupped. The prepuce was slightly red around it.

He had had communication with a stranger on the 10th. He first observed the sore, which was extremely minute, on the 13th.

*Pil. hyd.* gr. v. *o. n. Infus. ros.* ℥ *Mag. sul. o. m. Lot. nigra.*

For two or three days the sore enlarged,* continuing flat, but exchanging its yellowish for a redder tint. The sore then began to diminish, and as moisture was applied, to prevent a scab, it healed with a minute red border. The surrounding redness of the prepuce was removed. The bowels were opened twice or thrice daily. There was no disturbance of the health.

*Lot. Bat. camph. vice lot. nigr.*

On the 21st the sore was healed, a healthy cicatrix being left, with, *perhaps*, a thickening of the rim.

*Pil. hyd.* gr. iij. (*vice* gr. v.) *o. n. Dec. sars. c.* Oss. *quotid. Omr. Inf. ros.*

Dec. 1st. Health good—no induration nor unpleasant appearance about the citatrix. Mouth not perceptibly affected.

*Omr. pil. P.* ℥ *Sarsâ.*

He took the sarsaparilla for a week or ten days, when he finally discontinued medicine. His health was better than before he contracted the sore. He has since remained quite free from complaint.

Case 3.—*Excoriation-sore resisting simple treatment—yielding to moderate doses of mercury.*

I was consulted in the spring of last year by a tradesman residing in St. Martin's Lane. The inner prepuce was rather red, and on it was observed a circular sore, resembling those in the former case.

He had had this sore for ten days or a fortnight—had taken some aperient medicine, and applied some lint.

I ordered the blue-pill every night—

* At its utmost size, it did not equal a *very* small pea in dimensions.

the infusion of roses and salts every morning.

In a week the sore was not healed. The bowels were too much relaxed.

I continued the blue-pill—conjoined with it the decoction of sarsaparilla—and touched the sore with the lunar caustic.

In a week or ten days the sore was quite healed, and the cicatrix in this, as in the former case presented no induration. The mouth was little affected.

I directed the mercury to be discontinued;—the sarsa to be taken for a short time longer.

The patient has remained free from complaint.

CASE 4.—*Excoriation-sores, for which mercury was necessary and successful.*

Mr. W. Herring, of Foley Place, consulted me on the 26th of January last, on the case of a gentleman who had been under his care, and in whose recovery he was warmly interested.*

The gentleman was about 19 years of age. He had gonorrhœa, with some scalding. There were several small circular sores, of the character frequently referred to, on the inner prepuce, chiefly at the angle. There was slight surrounding redness—scarcely any tumefaction. The gentleman was pale—the tongue was rather loaded.

About a fortnight previously he had connexion with an acquaintance, with whom he remained for some time.

In 48 hours he observed urethral discharge. In 12 hours more the sores of the inner prepuce had appeared. In 24 hours more there was ardor urinæ.

He took under Mr. Herring's direction purgative medicine and copaiba.

*Pil. hyd.* gr. iij. *Pulv. ipec.* gr. ij. *o. n.*
*Mist. mag. sul.* ℥. *Mag. carb. o. n.*
*Lot. nigra.*

In a week some of the sores were healed, but others had appeared, and, in fact, there was a marked disposition for fresh ones to start up. They were minute, yellowish, circular, insulated, looking as if the cuticle had just been picked out, with slight surrounding redness.

*Pil. hyd., o. a. n.*
*Mist. Magnes., o. a. m.*
*Lot. rubra. Argent. nit.*

In another week, very little progress had been made. Some sores were healed; others were established. There were two or three on the glans. One on the outer prepuce, just at its free edge, was larger and deeper than the rest, with something like induration of its basis. It had been formed by the confluence of two or three.

*All the sores touched every three or four days with caustic. P.*

*Feb. 15th.* The sore on the outer prepuce has displayed rather more induration; it is not healed—it is slightly irregular, of about the size of *half* a split-pea——yellowish on the surface with redness around. All the others which existed at the time of the last report are now cicatrized, one or two in the angle having left minute indurations. Two fresh sores had appeared on the dorsum of the glans, contiguous to the corona, of precisely the same character as all had evinced in their commencement. There was another on the glans near the orifice of the urethra; a slight scab was on it. The mouth was not sore. The gonorrhœal discharge was nearly gone.

I concluded that we had given a sufficient trial to general treatment. The patient had taken mercurial aperients for nearly three weeks, yet fresh sores still sprung up and ran the same course as their predecessors. The disposition to confluence, to the formation of a large sore, and to induration of its basis, strengthened, if it did not confirm my suspicions, and determined me to put the patient through a mild mercurial course. With the concurrence of my friend, Mr. Herring, who took the same view of the circumstances of the case, the young gentleman was placed upon the following plan.

*Pil. hyd.* gr. iij. *bis die.*
*Decoct. sars.* c. ℥ij. *ter die.*

* I saw, in consultation with this gentleman to-day, (March 18th,) an interesting case of excoriation and paraphymosis. It was necessary to operate.

*Lotio nigra tantummodò.*

*Mist. magnes. sulph. o. 3tio. mane.*

*To take meat every other day—and to abstain from wine or beer.*

*March 16th.* The plan detailed above has been steadily pursued. In about a week from its commencement the sores had cicatrized, and no fresh ones have appeared. There is now scarcely any, even the most minute, induration left in the site of the ulcer of the outer prepuce. Yet there is still a slight degree of redness on this and on the inner prepuce, and as it naturally covers the glans in this gentleman, it is probable that neglect would still occasion recurrence of the complaint. The health is excellent, and he has gained both strength and flesh. The gums are very gently affected.

*To continue the pills for one week—the sarsaparilla for three. To retract the prepuce and use ablution with cold water thrice daily—and to keep lint constantly applied in the angle, and between the inner prepuce and the glans.*

This case exemplifies in a striking manner the observations which were made on the characters of the sore and the principles of treatment. The latter in this form of venereal ulcer should always be experimental. Mercurial purgatives or aperients, abstemiousness in diet, repose, ablution, the application of black-wash in the first instance, and caustic afterwards, should be tried in the initiative of every case. But, *if* the trial fails, I conceive that the surgeon must be wedded to opinion should he hesitate to prescribe a mild course of mercury. I might mention other cases in corroboration of this view. They would encumber what requires no further illustration.*

Another affection should be mentioned here, as it seems to enjoy some natural affinity to the excoriation sore.

It is what may be denominated chronic inflammation of the inner prepuce. I am not aware that this has been mentioned by any author of consequence, indeed the descriptions contained in this paper are exclusively drawn from my own observation, uninfluenced by the opinions and experience of others. The affection in question is one of much interest and of some importance. In a gentleman on whom I am now in attendance, it has led to a separation from his wife for upwards of three years. But the length to which these remarks have extended, warns me to forbear inflicting more on the patience of my readers.

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## Rochdale General Dispensary.*

## II. Report of Cases treated by Mr. Bower.

### 1. *Ascites. Paracentesis performed.—Cure.*

Thomas Mills, ætatis 18, of poor parents, and scrofulous habit, admitted March 20th, 1833, presenting the following symptoms and appearances.—Sight of left eye irrecoverably lost, from accident. Left elbow-joint much enlarged, with numerous sinuses discharging a thin unhealthy matter. Abdomen greatly distended, with evident fluctuation. Face pale and cachectic, tongue red, much thirst, appetite impaired, urine scanty and high coloured, bowels open, slight œdema of the lower extremities, great emaciation and debility.

States that he has worked in a factory from childhood. About two years ago a bobbin was thrown at him, which hit him on the eye, and instantly de-

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* It is singular how readily this sore yields to ordinary treatment in some cases, and resists every thing but mercury in others. Yet the closest observation can detect no obvious difference of character. I once *saw* this sore treated off hand by mercury. The mineral was "thrown in." It is many months (they amount to years) since the gentleman contracted the malady and suffered the treatment. His health is broken for ever.

* This report has been forwarded for insertion in this Journal. Our anxiety to promote the publication and diffusion of clinical facts induces us to accede with pleasure to the proposal.—*Eds.*

prived him of sight; the globe appearing to have been ruptured, the humours escaping and the eye collapsed. A month after this accident his arm was violently twisted by an overlooker, and from that period he dates his present complaints.

He had been under the care of several practitioners in the neighbourhood, and taken various medicines without relief.

He was now ordered quinine with diuretics, friction to the lower extremities and abdomen, and the iodine ointment to the elbow-joint, generous diet, and moderate exercise in the open air.

May 12th. General health a little improved, but the hydropic symptoms much increased, the abdomen distended and appearing ready to burst. A large pouch had formed at the navel, remarkably thin and transparent, which, on attempting to get out of bed without assistance, was ruptured, and a little fluid escaped. Paracentesis was immediately performed, and twenty-four pints of a clear, straw-coloured fluid evacuated. Medicines, &c. to be continued.

May 30th. Abdomen has almost regained its former size, and there is a slight discharge from the umbilical aperture.—Urine in small quantity.—Bowels regular, appetite moderate. To continue.

June 14th. Abdomen much reduced in size, and fluctuation less perceptible; umbilical opening closed; urine in greater quantity and a paler colour; thirst less urgent; appetite improving. Bowels regular. To continue.

July 23d. Has gained flesh and strength rapidly since last report. Abdomen has nearly regained its natural size—no fluctuation perceptible, œdema of lower extremities entirely disappeared, urine in proper quantity, &c., and feels able to resume his occupation.—Elbow-joint still a little enlarged, with slight oozing from two or three small openings.

Ordered friction with iodine ointment to be continued, and to take tinct. iodine internally. Generous diet and moderate exercise. Discharged.

The dropsical symptoms in this case would seem to have been the result of extreme debility, arising from the nature of his occupation in a heated and unhealthy atmosphere, scrophulous diathesis, poor diet, &c., producing a want of tonicity in the exhalant vessels of the peritoneum, thereby allowing a greater quantity of serum to be poured out than the absorbents were able to take up; for it is remarkable that, after the fluid was evacuated, and as the general health improved, the accumulation which had again taken place was soon absorbed, and no disposition evinced for its re-production afterwards.

### 2. *Lumbago, with Metastasis to the Testicle.*

*Case* 2. John Williams, ætat. 52, of spare-habit, and nervous temperament, had been subject to severe attacks of lumbago and sciatica for the last twenty years. On the 27th October, 1833, after long exposure to wet and cold, was seized with severe lancinating pain in the loins, shooting down the back part of the thigh, in the course of the ischiatic nerve, as far as the calf of the leg, occurring in paroxysms, with intervals of from ten to fifteen minutes, and much aggravated on the slightest motion; no fever, vomiting, or pain in micturition: bowels habitually constipated. Ordered friction, with stimulating liniments, to the loins, and to take—

*Hydrargri submur.* gr. iv. *Ext. colocynthidis*, gr. x. *statim.*

*Magnes. sulph.* ʒvj. *Infus sennæ*, ʒvj. *M. Cyathum vinosum secundâ quâque horâ donec alvus respond.*

28th. Passed a restless night, pain exceedingly severe—bowels freely opened—urine in moderate quantity—pulse 90 and soft—tongue slightly furred—thirst. Ordered to keep in bed: friction with tartar-emetic liniment to the loins; bottles of hot water to the feet. To take five grains of Dover's powder every three hours; warm diluents; warm bath, and one grain of acet. morphine at bed-time.

29th. Restless night—pain still severe—profuse perspiration—bowels open—makes water freely—thirst—

tongue furred—pulse 85 and soft. Ordered Dover's powder, friction, warm-bath and acet. morph. to be continued.

30th. No sleep—still in much pain—perspiration profuse—pustular inflammation on the loins—bowels open—fever moderate. Ordered to continue warm-bath and acet. morphiæ, and to take the following draught every three hours:—

℞. *Tinct. colchici*, ʒss. *Spt. ætheris nitros* ʒss. *Magnes. sulph.* ʒj. *Mist. camphoræ*, ʒj. *Syr. rheados.* ʒj. *M.*

31st. Was called early this morning from his having been seized in the night with excruciating pain in the left testicle, which was found to be a little enlarged, exquisitely painful on pressure, and the scrotum of a deep purple colour. Had had no sleep—pain in the loins entirely gone, but still complains of numbness in the left thigh and leg—skin moist—bowels open—urine in moderate quantity—fever moderate. To continue the draughts, with warm bath and acet. morphiæ at bed-time—warm anodyne—fomentations to the testicle.

Nov. 1st. Slept a little. Testicle still more enlarged and very painful, the pain shooting up to the groin—spermatic cord a little thickened and tender—scrotum much discoloured. To continue.

2d. Symptoms much the same. To continue fomentations, with warm bath and morphine at bed-time, and to take pulv. colchici, gr. x. every four hours.

3d. Has slept four hours. Testicle somewhat reduced in size and less painful—scrotum regaining its natural colour—nausea—frequent loose stools—urine in considerable quantity. To continue fomentations, with morphine, at bed-time, and colchici, gr. v. every three hours.

4th. Passed a good night—testicle much reduced in size, and not painful, except when pressed upon—scrotum still less discoloured. To continue colchicum, &c.

From this date, the symptoms gradually subsided, a slight numbness of the left thigh and leg only remaining.

10th. Free from complaint. Discharged.

This case is strikingly illustrative of the migratory character of rheumatism, and of its disposition to attack fibrous structure, in whatever part of the body it may be found. It is probable that the tunica albuginea of the testis became the seat of the specific inflammation after its transmigration from the loins, in the same way as it is occasionally observed to attack the sclerotic coat of the eye, producing what is denominated rheumatic ophthalmia. General or local abstraction of blood was not employed; for it has been found that, excepting in young subjects of plethoric habit, and where the accompanying fever is of a purely inflammatory character, it has not only failed to alleviate the pain and other distressing symptoms, but has tended to superinduce such a degree of debility, as to render the attacks more frequent afterwards. Colchicum, in the form of tincture, though given in pretty large doses at short intervals, for three days, did not seem to have any influence over the disease; yet, in the form of powder, its effects became speedily observable, producing nausea, purging, increased secretion of urine, great diminution of pain, and general amelioration of all the more urgent symptoms.

CASE 3.—*Tic Douloureux, treated with Carbonate of Iron.*

John Ashworth, ætat. 21, a stout, healthy young man, began to complain, ten days ago, of a sense of stiffness of the muscles of the left side of the face, with occasional darting pain, commencing at the root of the ear, thence radiating over the cheek as high as the foramen suborbitale, and downwards to the ala nasi, upper lip, gums, and teeth of the same side. He had been subjected to a variety of treatment, as leeches, blisters, sinapisms, opiates, purgation, &c. without relief. He had had three of the molar teeth extracted at different times, with no other effect than that of exasperating his symptoms.

1833, Sept. 10th. Admitted a patient at the Dispensary. The pain, which he describes as being of a burning, lancinating kind, comes on in paroxysms at irregular intervals, frequently as often as four or five times in an hour, continues about a minute, and then instantly

ceases. During the paroxysm he shrieks out in agony, and rubs the upper lip and cheek violently with both hands; the tears gush from his eyes, and the saliva flows from his mouth in streams. The left side of his face appears red and a little swollen, probably from the violence of the friction he uses to deaden the acuteness of the pain. Has had no sleep for several nights—appetite moderate—bowels regular, &c. Ordered—

*Ferri carbon.* ʒj. *Pulv. cinnamon. comp.* gr. v. *every four hours.*

12th. Paroxysms equally severe, but with longer intermissions. Has had some sleep. To take—

*Ferri carbon.* ʒij. *ter in die.*

14th. Paroxysms less severe—of shorter duration, with longer intervals. To continue.

16th. Only two attacks since last report. To continue the iron twice a day.

19th. No return of pain—sleeps well, &c. To continue the iron once a day.

24th. Free from complaint, and has returned to his employment. Discharged.

*** The subject of the case mentioned in page 177 of our last number, where recovery took place after 12 tappings, has been seen a few days ago, by *Dr. Johnson*, through the kindness of *Dr. Dickson* and *Sir William Burnett*. The gentleman, a Lieutenant in the Navy, is quite recovered, and all traces of enlargement in liver and spleen gone. He is now in pursuit of employment in His Majesty's Service again. The Case is exceedingly creditable to the professional skill of *Dr. Dickson* of the Royal Naval Hospital at Plymouth. *J. J.*

*22nd March*, 1834.

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## III. LANCASTER LUNATIC ASYLUM.

Mr. Davidson relates the following cases in our Liverpool contemporary, for March of this year.

*Case* 1. Th. Bullock, æt. 55, died Sept. 3d, 1831. The prominent symptoms were, profound affection of the locomotive muscles—ulcers of the sacrum and extremities—marasmus—occasional pyrexial excitement–complete fatuity—automatic life—frequent screaming.

*Dissection.* "Cranium very thick. Minute pisiform eminences disseminated over the mesial lines of the hemispheres. About a pint of pure serum in the cavity of the arachnoid. Œdema of the arachnoid elevated in the form of small bladders, containing limpid serum. White, thickened, mucous condition of the arachnoid, from subarachnoid effusion confined to the vertex and mesial margins of the hemispheres, and particularly in the intergyral spaces. Clouded, opaque, and thickened condition, from albuminous deposit on its inner surface, of that portion of the arachnoid unconnected with the pia mater, and situated behind the fourth ventricle and commissure of the optic nerves. Pia mater completely adherent throughout to the cortical substance, and, when raised, tearing up its outer layer, which was uniform in depth, and rather thicker than a wafer. Cortical substance in a state of ramollissement throughout, its whole depth of a lilac colour, and the torn surface granular, bloody, and resembling rotten fruit in consistence. Vessels of the cortical substance much dilated and tenacious. Small, bloody, punctuated extravasations, in the cortical substance throughout. Medullary substance rather soft, and pale in colour. About two ounces of pure serum in the ventricles. Small white granulations disseminated over the arachnoid of the ventricles, giving it a downy appearance; these were met with in greatest abundance over the arachnoid of the corpora striata and thalami. White pulpy ramolissement of the septum lucidum and fornix, of the lower part of the corpus callosum, and of the cerebral matter immediately surrounding the ventricles. This is one of the layers of the cortical substance, associated with softening, redness, intimate adherence of the pia mater to its surface, and other evidences of inflammation, and inflammatory irritation, are amongst the most common morbid appearances to be met with in old cases of insanity, and are attended either with general paralysis or profound dementia."—*Archives.*

Such cases are frequently met with in large lunatic asylums, and where the unfortunate patients are, more or less, deprived of muscular power as well as mental. This species of paralysis, Mr. Davidson avers, is invariably produced by a chronic inflammation, or its con-

sequences, in the periphery of the brain, first affecting the tongue, and afterwards the face and extremities. Till an advanced period of the disease, the general health does not appear to suffer much, and the appetite is good—often voracious.

*Case* 2. E. Madden, ætat. 40, died Sept. 13th, 1831. The prominent symptoms were typhoid pyrexia—constant agitation, requiring coercion—gradual sinking of the powers of life, without coma or convulsions. Maniacal delirium, succeeded by low muttering and complete insensibility, closed the scene.

*Dissection.* "Dura mater much injected, adherent over the left hemisphere to the inner table; its serous lining infiltrated with blood, particularly over the left hemisphere. Effusion of eight ounces of bloody purulent serum into the cavity of the arachnoid; *cerebral arachnoid covered at the convexities with a thick layer of consistent yellow pus, which completely obscured the convolutions;* and when superficially examined, conveyed the impression that a new, half-organized membrane had been formed upon the old, so great was its tenacity, and so completely detached was it from the flocculi floating in the sero-purulent secretion; white, thickened condition of the arachnoid very apparent over the convexities after the removal of the purulent layer above described; clouded, opaque, and thickened condition (in a trifling degree) of that portion of the arachnoid situated behind the fourth ventricle and commissure of the optic nerves; cortical substance of a reddish, lilac colour throughout, and in several places marbled, red, and softened: excessive red punctuation of the medullary substance, bordering upon uniform redness; the cut surfaces presenting numerous bloody points, which enlarged on exposure to the air for a few seconds, and gave a rosy tinge to the white substance. Veins and sinuses gorged with blood. Pia mater thickened, uniformly red, and highly injected throughout; bloody infiltration, about two inches long and an inch broad, where it lined the antifractuosities of the right middle lobe."

Several other cases are detailed by Mr. Davidson in the same Number of the Archives, to which we refer our readers, as valuable contributions to the pathology of insanity, and of cerebral affections generally.

To the above, we beg leave to add a short letter from Mr. Johnson of Dublin, on the same subject, and published in the same journal.

"In compliance with your request, I am happy in communicating to you the following particulars connected with the pathology of the brain; they are the results of about forty autopsies made in the Lancashire Lunatic Asylum by myself, during last Winter and Spring. I have no hesitation in allowing any use to be made of them which you please, because I have no wish to make out a case for this or that class of theorists; but, after very carefully observing and comparing together the appearances of the brain in such a number of cases, it is my firm and deliberate opinion, that deranged functions of that organ will be found accompanied very constantly by many of the following imperfections in its structure.

A faulty development of the convolutions, especially of those in the anterior lobes, as compared with the middle and posterior; a shallowness of the anfractuosities or sulci, between the convolutions, with a thin layer of the cortical substance, frequently, too, softened, and of a more dirty grey tinge than natural. Cerebellum sometimes smaller, but more often larger than its just proportion to the cerebrum, presenting the same alterations, in colour and consistence, as the latter.

A congested and more or less inflamed state of the pia mater, proved by the unnatural quantity of blood contained in the minute and capillary vessels which ramify through it; by the condensation and apparent increase of its substance; by the adhesions which it had contracted with the substance of the brain; so inveterate that it will be found impossible, in many cases, to strip off the membrane without tearing at the same time the surface of the brain; these morbid conditions, in the severe cases, will be found to extend

into the sulci; and by the formation of pus, attended of course with considerable breaking down of the neighbouring parts.

Considerable effusions at the base of the cranium, in the great cavity of the arachnoid, and, but, more seldom, in the ventricles; very palpable thickening and opacity in the arachnoid; small albuminous deposits in various parts of it, which may be compared to portions of curdled milk; these white streaks will be found extending on each side of the longitudinal veins throughout its whole length, but especially on the vertex of the head, an inch or two anterior to the angle of the lambdoidal suture; this part I have so often observed to be the seat of the most evident disorganizations, that I beg particular attention to the fact. The perforated places at the base of the brain present these alterations in the arachnoid very remarkably.

Great vascularity and thickening of the dura mater, its glistening healthy appearance replaced by a livid colour, and drops of blood exuding in many places from its surface, which has often been found adhering closely to the inner table of the skull; with occasional clots of blood in the sinuses.

The white part of the cerebral mass, and the internal figurate parts, which form such important features in the ordinary anatomical descriptions, rarely present any morbid appearances appreciable to examination beyond a slight softening, and an occasional light rose-coloured blush, or a clayey yellowish tinge, instead of the natural white colour. I have, however, seen a large abscess extending throughout the whole of the interior of one hemisphere, holding several ounces of matter. In the same case, I found osseous deposits in the substance of the brain.

I have examined the brains of patients labouring under very various symptoms of cerebral disease, but I have been less successful in reconciling the particular form and intensity of each patient's case with the *post-mortem* appearances than in convincing myself that there are certain phenomena to be observed in insanity and cerebral affections, depending upon the conformation of the brain and upon the state of its vascular system, and that the organ and its investments are equally liable to local disorders with other parenchymatous, cellular, serous, and fibrous tissues. If this last proposition be granted, the apparent contradiction to it which I have freely stated just above may be accounted for, either by my own inability, at present, fully to detect every change which has taken place, or by changes which the parts may undergo after death, or by the well-known difference which exists between one constitution and another in their susceptibility to natural or morbid impressions.

In offering my humble testimony to the accuracy with which I am convinced that the valuable papers published by you, about two years ago, will be found to detail the important characteristics of insanity, I deeply regret that ill health should have prevented you from continuing those researches, and hope that you may soon have it in your power to prosecute them more fully.

Believe me to remain,
Dear Sir, Yours, very sincerely,
J. JOHNSON, A.B.
Trin. Coll. Dublin."

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## IV. MR. GUTHRIE ON STRICTURE.

We quote the following clinical observations on the destruction of strictures by caustic, from a lecture of Mr. Guthrie's, published in a recent number of our contemporary, the London Medical and Surgical Journal.

"It is not my intention to enter into the history of the different kinds of caustic which have been employed by our predecessors in surgery, or of the methods of using them; you will find them related at length both in French and English writers, to whom I refer you. I shall confine my remarks to the methods at present adopted.

The caustics now used are two, the *potassa fusa* and the *argentum nitratum:* the first has been almost entirely abandoned with respect to the urethra, and the other has fallen into unmerited

obloquy and consequent disuse. You must not, from this remark, suppose that I am going to advocate its restoration to practice, for I am going to do no such thing; it would not be prudent to do so, even if it were proper, for the prejudices of mankind have been so greatly and effectually excited upon this point, that they must be gradually allowed to subside; they will not admit of being taken by storm. Like most other prejudices they have some foundation in truth; and it was the *abuse* of the argentum nitratum and not the *use* of it which has given rise to them. When a surgeon of reputation cures a number of patients by a particular remedy or remedies, his professional character is gradually, nay, sometimes rapidly, augmented; more cases come under his observation, and many that are not susceptible of cure by the means he employs; he is nevertheless constrained, or nearly so, to use them; mischief ensues, alarm is excited; it soon spreads, is fomented by the adversaries of the plan, and a mode of practice, which is really successful in many cases, is often abandoned from prudential motives. I honestly confess I dare not say to a stranger, whatever his case may be, and however useful a few applications of the argentum nitratum might be, that I mean to use it. I dare not do so until after a few visits, and we become better acquainted, and have more confidence in each other, perhaps only after he sees that he does not make much progress. I should lose my patient if I did, who would go to another, and might be told it was the very worst thing in the world; an opinion he would not fail to repeat. Such is the prejudice against it among the younger men in London, that when a man says he has been cured by it, the remark is, how lucky you were to escape; I would not suffer any doctor to burn me for all the world. Nevertheless the argentum nitratum is a valuable remedy, when properly and carefully used in appropriate cases and not abused. It has been supposed, 1st. that the argentum nitratum takes off spasm and irritation; 2nd, that it can destroy a long and narrow stricture; 3d. that it effects a permanent cure. The concurrent testimony of all writers establishes the first fact, and it is now almost the only object expected to be attained from its use. It is, however, capable of doing more when properly and carefully applied; and at some future period, when the prejudice which has arisen against its use shall have passed away, it will again take its place with other means, as a very effective remedy in certain cases of stricture. That it is capable of making a passage for itself, through a long, narrow, and impassable stricture, which has become hard, gristly, and irregular, through time and repeated attacks of inflammation, I do not admit; and the attempt to do it, under such circumstances, has been frequently followed by the occurrence of great inflammation, the formation of abscesses, of fistulous openings in the perinæum, and between the urethra and the rectum, of inflammation and abscess of the prostate and the bladder, and of profuse bleedings which, with all or many of the preceding train of symptoms gradually lead the unhappy sufferer to the grave. That the cure is more permanent than by other means may in some cases be the fact, but on the whole it is doubtful; and Sir E. Home, the great advocate for its use, in his later years and publications, admitted the necessity for the occasional passage of a bougie, in order to prevent a return of the complaint. According to his method, a bougie, the size or nearly so of the passage, was to be armed with caustic; and if one of this kind is used, it ought to be armed when the bougie is made, and not introduced afterwards, and the distance from the orifice to the stricture having been ascertained and marked upon it, the caustic bougie should be oiled or greased, which is the best mode when caustic is used. A bougie of the full size, or nearly so, of the urethra, is first to be passed down to the stricture to clear the passage, and after a minute or two withdrawn, when the caustic bougie is to be passed, and the end or point, in which the caustic lies, and is barely exposed, is pressed against the stricture for the space of a minute. The

first effect is to coagulate the mucous secretion of the part, forming with it a whitish soft substance, which has often been mistaken for a slough; the second is by its stimulus to relieve and remove the irritation existing on the surface of the stricture, so that the person often feels much easier after a slight application, makes water in a fuller stream, and is greatly surprised to find that the desire he suffered from to pass it every hour or two has been materially relieved. Sometimes, however, the effect is the reverse, and particularly where the application has been more severe, or the irritation has been of a nature not to be relieved by it. The part becomes more painful, the desire to make water greater, whilst the passage of it is altogether obstructed, or it passes by drops with great suffering, until, by fomentations, opiates, &c. the increase of irritation and inflammation has subsided. It acts, therefore, sometimes like a two-edged tool, and this has been another reason for its disuse, but it partakes on this point only of the property, which all other remedies have of doing the same, and the fact inculcates the necessity for great care and gentleness in its use, whenever it is had recourse to. When the application is steadily continued to the surface of the stricture for a minute or more, its continued effect is that of a caustic, viz. the partial destruction of the part, which injured a dead surface, must be thrown off by the usual processes of inflammation and ulcerative absorption separating it from the living part behind. Where the stricture is slight and thin, or narrow, this will in general be effected without much inconvenience, but when it is thick and hard it will not often be done easily, but, on the contrary, the inflammation will cause a greater thickening of the part, and the long train of evils I have alluded to already, if not prevented by proper means and a speedy abandonment of the practice. If, however, the operation should be fortunate enough to succeed, the separation of the slough in the diseased part is often marked by a paroxysm of fever, or the occurrence of an alarming hemorrhage. The rigors with which the febrile paroxysm commences are strongly marked, and I am sorry to say take place occasionally even before the slough separates for the last time. They frequently occur after every application, or every one which has been in the least severe, and in such cases forbid its continuance. They are dependent on a particular sympathy which exists between the urethra and the system at large, and will occur as readily from violence as from the application of any caustic whatever. I know a medical man who had suffered from Walcheren fever, and who almost invariably had a paroxysm whenever caustic was applied, or a large bougie was used so as to cause irritation; and the first paroxysm was always followed by others at regular intervals, so as to reproduce his Walcheren ague, which was only cured by the administration of bark, &c. in the usual way. This sometimes takes place in a less marked manner; and whenever the return of an irritation or pain is periodical and regular, quinine will in general, in combination with bark and opium, be found the best remedy, when exhibited between the periods of illness.

The hæmorrhages from the urethra are caused by the sloughs separating and leaving the cells of the corpus spongiosum exposed, or by the ulcerative process extending to some small vessel, the canal of which is partially opened. These, it is said, cease of themselves, although not until a great loss of blood has been frequently sustained, and it has been recommended to let the parts alone. I cannot give you any opinion formed from personal experience, as I have never seen one of these bleedings from caustic; but I conceive that they should be met and treated like hemorrhages from the same place from other causes, which appear to me to be of a similar nature.

The most alarming hemorrhages I have met with have been from common causes; and I will mention to you two of them of the most prominent kind, as they also point out the practice to be pursued in such cases."

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## V. HOPITAL DE BEAUCAIRE.

(*Clinique of M. Bland.*)

### ON THE FIBRINOUS POLYPI IN THE CAVITIES OF THE HEART.

CASE 1.—*Dyspnœa, Palpitations, constant sense of Suffocation—Death.*

Peter Dupin, a soldier, 22 years of age, of a sanguineous temperament, and healthy constitution, had always enjoyed good health up to the 12th of December, when he was seized suddenly with a difficulty of breathing, and with a feeling of weight, or pressure in the region of the heart. The symptoms became daily worse, and he was admitted into the hospital on the 23d, or the eleventh day of the disease. The report then states, that he laboured under dyspnœa, great oppression, sharp pain over the heart, and palpitations. Auscultation discovered that the movements of the heart were exceedingly tumultuous, and that the bruits accompanying the contractions of the auricles, and those of the ventricles, were dull and stifled. The pulse was frequent, small, irregular, and unequal. The functions of the other organs of the body appeared to be quite normal. The case was recorded in the hospital books as one of acute carditis. A venesection and 12 leeches to the pericardiac region were ordered.

24th. The cardiac pain less severe; other symptoms unrelieved.

Half a grain of powdered foxglove to be taken every four hours.

25th. This morning the oppression was much aggravated; the face was livid and seemed to be injected with blood; and soon afterwards the whole of the body assumed the same purplish hue, which became darker towards the afternoon. At this time the agitation was truly dreadful; the poor patient struggling so violently for breath, that he shook his very bed with his efforts. But his strength could not long endure such suffering; he gradually became weaker; an apoplectic râle was heard in his throat; the limbs were icy cold and bedewed with a clammy perspiration; and he died at 6 o'clock, p. m.

*Autopsy* 24 *hours after death.* Face of a violet colour; integuments looked as if they were ecchymosed. Upon opening the chest, the lungs were found to be healthy;* the heart was perhaps a little enlarged; the veins on its surface were gorged with black blood, but the texture of the viscus when cut through was normal; the surface of the left auricle was livid; and when opened, this cavity was found to be blocked up by a polypus, or fibrinous concretion, as large as a hen's egg;—it passed through the auriculo-ventricular orifice into the cavity of the ventricle, where it became split into branches, which were interlaced with the columnæ carnæ, adhering to these very strongly. The cavities of the right side of the heart were full of black blood, part of which was coagulated. The other viscera of the body were sound.

*Remarks.* The preceding case of polypous concretion in the heart we consider to have been purely idiopathic, and not depending upon any lesion of its structure.

The apparent slight increase of its size was connected altogether with the distended state of its cavities. The most important features of the case are, the suddenness of the illness occurring in a subject previously so healthy and strong, that he had been able to continue his duties as a soldier up to the day on which he was seized; and the entire absence of any necroscopic lesion, except the state of the left auricle and ventricle of the heart.

CASE 2.—*Cephalalgia, Anorexia, Vomiting, Diarrhœa, insensible Pulse and Death.*

A young girl, six years of age, habitually pale and inactive, but free from any derangement of the organic functions, was seized on the morning of the 30th of November with the head-ache and loss of appetite. After noon vomitings and diarrhœa came on, and all her energies seemed to be quite exhausted,

* About five ounces of a limpid serum were in the pericardium.

or paralysed. Towards the evening, the body became cold and discoloured all over, the lips were livid, and the eyes dull; her speech failed, and the pulse could not be felt; but all this time the breathing did not appear to be difficult or oppressed. She died at 11, p. m., about 15 hours from the commencement of her illness.

*Autopsy, 24 hours post-mortem.* Cerebrum and cerebellum healthy; about one ounce of serum beneath the latter: lungs sound and crepitant; a few ounces of serum in the pleuræ; the size and texture of the heart unaffected; but, upon cutting open its cavities, a firm yellowish polypus was found to occupy entirely the cavities of the right auricle and ventricle, and to extend for about an inch into the pulmonary artery, which was almost completely plugged up with it. The left auricle was empty; and the left ventricle contained only a small clot of blood. The other viscera were normal.

*Remarks.* In this curious case, the polypus occupied the right cavities of the heart. There can be very little doubt, that the concretion was formed during the few hours which immediately preceded dissolution; for early on the very morning when the patient was seized, she seemed to be in her accustomed health, and did not exhibit one symptom which could indicate any cardiac malady.

CASE 3.—*Malaise, Anasarca, Dyspnœa, Vomiting, Irregularity of Pulse, Shiverings, and Death.*

A young boy, five years of age, having in a childish frolic exposed himself alternately to heat and cold, became, in a day or two afterwards, feverish; the face was puffed up, and the legs were observed to be œdematous. On the following day, the infiltration had increased, and a distinct fluctuation was perceptible on tapping the abdomen.

All these symptoms were however speedily dissipated by a few doses of calomel and squills, along with a diuretic mixture, and the boy was pronounced well. But on the following evening he was seized quite suddenly with dyspnœa, vomiting, thirst, and occasional delirium; and when visited next morning, all these symptoms were found aggravated; the breathing was oppressed and extremely hurried, (amounting to 60 respirations in the minute;) the pulse was frequent, small, and feeble; the face was pale; the lips livid; and the pupils dilated. Blisters, and a stimulating antispasmodic potion were ordered. At five o'clock in the afternoon, a general convulsive trembling of the body came on, and this was followed by a stiffness of every part, by trismus, hurried and stertorous breathing, &c. Death took place three hours afterwards.

*Autopsy.* Cerebral vessels gorged with blood; substance of the brain healthy; about one ounce of serocity at the basis, and a small quantity in the lateral ventricles; lungs crepitant and otherwise healthy; heart normal as to size and texture, the right ventricle completely occupied with a fibrinous concretion, which was partly of a firm consistence, and of a whitish colour, and partly soft, gelatinous, and tinged red, near the orifice of the pulmonary artery. Abdominal viscera sound.

*Remarks.* In this, as in the preceding example, we have to notice the very sudden and unexpected invasion of alarming cardiac symptoms in a child, who had been previously quite free from them. True, indeed, there had been anasarca and ascites, a few days before, but these had been speedily removed, and the boy appeared to be altogether convalescent, when a violent dyspnœa set in; at the same time his features became altered, and his lips livid; phenomena which too obviously announced some serious impediment to the free circulation of the blood. The subsequent delirium, apoplexy, and convulsive movements depended no doubt upon the disturbance of the course of this fluid through the encephalon; the absence, however, of any organic lesion of the brain shewed that the head symptoms were merely symptomatic; and the soundness of the respiratory organs completely exculpated them from having caused the fatal issue of the case.

These three cases, which we have reported, may be said to illustrate the rapid or acute formation of cardiac polypi; the following is adduced as a probable example of the more slow or chronic occurrence of the disease—we say "probable," for, unfortunately, the diagnosis was not verified by dissection.

Case 4.—*Dyspnœa—Lividity of the Face—Irregularity of the Pulse—Suffocation.*

A girl, aged nine years; lively, of a fresh colour, good constitution, and who had hitherto enjoyed entire health, became afflicted, about the beginning of November, with a difficulty of breathing, and, at the same time, the vermilion colour of her cheeks assumed a purplish hue. She began to lose flesh, the features shrunk considerably, and the eyes became heavy and dull. As the dyspnœa was gradually increasing, she was put under the care of M. Bland, on the fifteenth day after the commencement of her illness. The report at this time states, that the face was injected and of a violet tint; the lips livid; respiration hurried and oppressed; pulse frequent, small, irregular, and unequal; the stethoscope announced that there was no lesion of the lungs, but that the movements of the heart were tumultuous, and their bruits dull. The child's appetite, notwithstanding all this distress, was scarcely at all affected, and she would even engage in some of her usual exercises. The remedies which were used were of little avail; the disease evidently gained ground, and, after two months' sufferings, proved fatal, the patient seeming to be actually suffocated. The whole of the body had previously assumed a blueish tint.

*Remarks.* Our reason for supposing that the disease of this girl was not any organic lesion of the texture of the heart is, that in most cases of such lesions, the progress of the symptoms is rarely so rapid as in the example we have related; on the contrary, they are developed very gradually and slowly, exhibit intermissions of longer or shorter duration during their course, and advance to a fatal issue only after a long protracted illness. That the respiratory organs were not the seat of ths disease, we think, may be inferred from the normal condition of their functions, indicated by the stethoscope; and, on the whole, the more probable explanation of all the phenomena of the case seems to be, that they owed their origin to some obstruction of the circulation through the heart, and that this obstruction was caused by the gradual formation of one or more polypous concretions.

With the view of illustrating the history of the very important disease, of which the four preceding cases may be viewed as characteristic examples, we have drawn together from different sources short notices of several others, recorded in works of acknowledged authority.

*Case* 5. Hoffman relates that a young man complained of a fixed, heavy pain in the left side of the chest, above the nipple, and that this was accompanied with anxiety, dyspnœa, palpitations of the heart, and irregularity of the pulse, and to these symptoms was added, in course of time, œdema of the lower limbs. He died in a short time, and Hoffman found, upon dissection, that the diagnosis which he had formed (viz. that there was a polypus within the heart), was quite accurate; for no structural lesion could be discovered, and the only morbid appearance was the existence of four fibrinous polypi in the cardiac cavities; two in the right ventricle, one in the left, and another in the aorta. The same author, in his "Opera Omnia," relates another very analogous case.

*Case* 6. A young man experienced great difficulty of breathing, a sensation of a trembling or stifled agitation of the heart, and the dread of suffocation whenever he lay on his right side. The symptoms were always relieved, by turning on his left side. He died, and, when the body was examined, a large polypous concretion was found within the right auricular cavity.

*Case* 7. A female suffered from pain in the region of the heart, occurring at

intervals, and which was attributed by her physician to organic disease of the organ. The pain became more and more severe, and at length was constant, and finally caused her death. On dissection, a fleshy, black polypus, of the size of a walnut, was discovered in the left ventricle.—*J. Schenkins, Obs. Med. Rar.*

Rivière mentions the case of a man, who, after a sudden alarm, was seized immediately with a tremor of the heart* and with dyspnœa; his pulse became irregular and unequal, and he died shortly from suffocation. The heart and large vessels were found obstructed; in the left ventricle alone there were masses, in substance resembling that of the lungs; and the largest of these quite plugged up the orifice of the aorta.

Bonnetus, in his Sepulchretum, relates the history of a young girl, who was suddenly attacked with great oppression, most painful dyspnœa, and who, after lingering for three days in great agony, died, apparently suffocated. The right ventricle was completely obstructed with a large fibrinous polypus, which extended into the orifice of the pulmonary artery. Wepfer, in his treatise on apoplexy, records the case of a woman, who had long suffered from dyspnœa and palpitations of the heart, and in whose body, the only discoverable post-mortem morbid appearance was the presence of a polypus in the aorta. Friend tells us of a young man, who experienced violent palpitations of the heart after recovering from fever. This patient died suddenly, and, upon dissection, an immense concretion was found in the left ventricle of the heart. The formation of these polypi appears in some cases to be the work of a long time. A man, whose case may be found in Hoffman's works, having drank a quantity of cold beer, when he was heated, was seized with palpitations of the heart; these continued to recur with more or less severity for several years; he died at last from peripneumonia. An enormous concretion was discovered on dissection, occupying the pulmonary artery. The preceding are a few, out of a host of similar examples, which seem to us to prove that polypus of the heart ought to be regarded as an actual and an idiopathic disease. But they have not been able to satisfy the mind of Morgagni; for he considers the greater number of cardiac polypi as the result of, and, consequently, as formed posterior to, the extinction of life; and admits only a very few as genuine examples of the contrary. He acknowledges, however, that the blood may spontaneously coagulate in the blood-vessels, when the circulation is from any cause obstructed or arrested, also in aneurismatic swellings, and in the heart during the last moments of life, the cause being, in all these examples, the retardation of the blood's current; why not, therefore, at any period of life, when this state of the circulation is howsoever induced? We have only to suppose that a syncope lasts beyond a certain time, and it appears to us that the foundation of a cardiac polypus may be formed at any time, even in a person previously quite healthy. Probably, the greater tendency to such depositions in some than in other constitutions, may be connected with the different conditions of the blood itself in different systems, and in the same system at different periods. Be this as it may, we are forced, by the mass of affirmative evidence, to admit the correctness of Hoffman's position:—"Sunt autem polypi tum potissimum gravium morborum mortisque causæ, si quando mole suâ aucti, vel quod sæpius fit, a levi tam internâ, quam externâ causâ, de sede suâ dimoti, libero sanguinis circulo ex uno cordis ventriculo per pulmonum vasa in alterum obicem ponunt, eumque pervertunt, aut quando orificia vasorum penitus occludendo motum sanguinis vitalem omnino tollunt"—*t.* iii. *p.* 278; and to express our opinion, that many cases of sud-

* This tremor of the heart may be considered as analogous to the muscular trembling of old people. It depends upon atony, and consists in a number of imperfect and precipitate contractions. In the case of the heart being so affected, it must be incapable of emptying its contents.

denly supervening dyspnœa, of disturbance of the central organs of circulation, of rapidly fatal asthmatic affections, and of palpitations of the heart, owe their true origin to the development of polypous concretions in the cavities of the heart.—*Révue Médicale.*

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### VI. TRAUMATIC TETANUS.

A midshipman, on board of an Indiaman, got wounded in the left foot by treading on a rusty nail, 14th August. He kept his watch during a cold, rainy night, and, by eight o'clock next morning, presented symptoms of trismus. An opiate with camphor was exhibited, but the tetanus increased, and the limb was cold, and as he described it, dead and powerless. The pulse was 120, and his situation altogether alarming. It was proposed to the surgeon of the ship, by Dr. Murray, the narrator, to tie the posterior tibial nerve, and thus cut off communication with the wound. This was done, and although almost incapable of articulating a word the moment before, he immediately opened his mouth with an exclamation. His countenance presented a remarkable change for the better, and he said he felt life returning to his leg. The original wound was dilated, and a poultice applied. His bowels were now copiously opened, after which he fell into a sound sleep, which continued 4 hours. The tetanic symptoms, however, though mitigated, did not disappear, and it was deemed advisable to bleed the patient to syncope, two days afterwards. By the 18th of August the tetanic symptoms had nearly disappeared, and he convalesced rapidly from this time. This case is related by Dr. Murray in the sixth volume of the Calcutta Medical and Physical Transactions.

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### VII. NEURALGIC AFFECTIONS OF STUMPS.

The following case occurred in St. Bartholomew's Hospital, and is published in the Medical Gazette, No. 325, by Mr. Crookes, the house-surgeon.

"Sarah Slyfield, about eighteen years of age, was admitted into St. Bartholomew's in July last. She had undergone amputation of the right thigh in the country about nine months before her admission, for disease in the knee-joint, the effect of an injury received several years previously. When received into the hospital, she stated that the pain in the stump had come on within a few days of the removal of the limb; and that, although the part had been carefully examined, and means adopted for her relief, it had continued to increase, almost without intermission, up to the present time. Shortly after the wound had healed, six months after the operation, a small lump formed in the extremity of the stump, which was opened, and several pieces of dead bone extracted, but without affording any relief. Menstruation had commenced about the age of sixteen, and continued regularly up to the period of the operation, but has since only occurred once. Her person was stout, with a hale and somewhat bloated countenance, and she complained of nothing but severe and incessant pain in the stump. Examination of the part much increased her distress, as the slightest touch in any point of its integument gave her pain. The limb was naturally large from fat, but without any swelling or redness; and the extremity of the bone seemed well covered by soft parts. She was bled to sixteen ounces, and ordered purgative and saline diaphoretic medicines, and to apply linseed meal poultices.

This painful affection, which was so severe as almost entirely to prevent the patient getting rest, continued gradually to increase for about four months, in spite of the adoption of the most active remedies. Local and general bleeding, counter-irritation by moxa, narcotics, and the application of sedative plaisters to the stump, with tonics and antispasmodics, were all tried in vain; and the patient began to entreat to have the stump removed, to procure her, if possible, some alleviation of her sufferings. During this time she also experienced repeated attacks of hysteria; and was once seized with pain and acute sensibility of the integuments of

the abdomen, which at first excited a suspicion of peritonitis.

As it was suggested by some that there might be suppuration in the extremity of the stump, a puncture was made into it, and the knife carried to a considerable depth, but without evacuating any matter, or producing any beneficial effect; it was therefore resolved to perform a second amputation of the limb.

*Operation.*—On account of the shortness of the stump it was impracticable to employ the tourniquet, and compression was made on the artery, as it passes beneath Poupart's ligament, by an instrument ordinarily used for that purpose. The muscles on the outer part of the thigh were first divided, and those on the inner, including the artery, last, in order that the vessel might be secured as soon as cut through. The bone being sawn through, and several small vessels tied, the ischiatic nerve was drawn out, and about an inch of it removed; some of the branches of the crural nerve were also cut shorter. Fifty minims of laudanum were given after she was taken to bed, as she was suffering great pain.

*Examination of the Stump.*—The extremity of the ischiatic nerve was bulbous, and of an almost cartilaginous hardness, and from this bulb there was continued in various directions a layer of dense cellular tissue, connecting it with the bone, the muscles, and the cicatrix. One of the filaments of the anterior crural nerve, perhaps the nervus saphenus, had also a bulbous termination, comparatively much larger than the ischiatic, and was similarly connected with the surrounding parts. The extremity of the bone appeared free from disease, nor was there any suppuration in its neighbourhood.

From the time of the operation up to the period of her discharge from the hospital, with the exception of a slight recurrence of the painful sensibility of the integuments of the abdomen, she continued to go on well, never having experienced any pain in the stump, or any unfavourable symptom. The remaining portion of the limb was very short, but sufficient to permit of the adaptation of the ordinary wooden leg, with the additional security of a strap to pass over the shoulder."

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## VIII. GUY'S HOSPITAL.

### CLINICAL REMARKS OF MR. BRANSBY COOPER ON INJURIES OF THE HEAD.*

Mr. Cooper has made some remarks on this interesting subject in the volume of his Clinical Observations lately published. It is a question which can never be exhausted, for the facts are infinitely varied, and scarcely less varied than complex.

The diagnosis between concussion and compression has exercised the ingenuity of able surgeons, and perplexed and confounded the minds of inexperienced ones. Some authors have related in graphic and perspicuous language the symptoms characteristic of either accident. The delighted student has closed the page, and proceeded with confidence to confirm at the bedside its lucid information. He speedily finds that the volume of Nature is not so easily deciphered. Bewildered, disappointed, he turns with disgust from the ungrateful occupation, and either implicitly bows to authority, or smothers the doubts and the difficulties of reason in empirical experience.

Such are the phases of study, observation, scepticism, and despondency in the ordinary student of a hospital. He proceeds to practice hesitating and unsettled. His trust in dogmas has been shaken—his confidence in himself is not established. If active, industrious, and possessed of talent, a sufficient sphere of observation is presented to him, he gradually throws off the confusion which oppressed him, and emerges the practical experienced surgeon. We have probably sketched the progress of a Hey.

But the mental constitution of too many has never recovered the fever of

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* Surgical Essays, &c. By B. B. Cooper, 1833.

doubt that seized it on exchanging the class-room for the bed-side. The malady has terminated in leaving the apothecary of after-life a confident sciolist, or a trembling practitioner.

Our text-books for the most part require revision—our lectures in many cases serve but to mislead. Errors and absurdities have passed as heir-looms from one generation of writers and teachers to another, and there are few who have published or have spoken the plain dictates of experience, the simple precepts of induction. Some may be excused for defective opportunity—more *could* only plead imperfect observation.

There is one surgical writer of modern times who stands pre-eminent for his philosophic labours. It is Mr. Brodie. Without pretension, with little art, his works are a noble specimen of unadorned inductive reasoning. Every opinion is the expression of facts, and none of his opinions are more. It is true that the limited powers of the human mind render even the inductive reasoner liable to error—it is probable that Mr. Brodie has not escaped the operation of this law of infirmity—but it is certain that the man who adopts the method he has chosen, will commit fewer blunders, and elicit more truth, than the copyist, the theorist, or the superficial reasoner.*

Mr. Cooper's volume is avowedly a record of facts, and of opinions which are only their expressions. The advantages of study which Mr. Cooper has enjoyed must necessarily induce us to regard his sentiments with attention and respect. We extract his description of concussion and compression.

"In cases of *concussion*, the patient is stunned, the pulse weak and fluttering, the face pale, and the extremities cold; these symptoms occur immediately after the accident, and they continue until a reaction commences, when a new train is presented. The patient now remains in a half comatose state, with his senses weakened but not lost, and his power of volition suspended but not destroyed. If he be addressed loudly by his name, he is capable of giving a rational answer, and when thus roused, his pulse is found to rise from its natural number to a hundred and twenty. In simple concussion, the pupils of the eyes have a natural appearance, and are capable of being stimulated by light,—nausea and even vomiting are frequently concomitant symptoms.

In *compression*, a complete comatose state comes on, and the senses and volition are entirely lost. The pulse is small, labouring, and hard; generally irregular, and sometimes intermitting. The pupils are dilated, and the retina insensible to light, occasionally one pupil will be dilated and the other contracted; and more rarely, both sides will be contracted. There is, however, no symptom, either in concussion or compression, more difficult to estimate as a diagnostic mark than the state of the pupil. I am, however, inclined to consider contraction of the pupils as an unfavourable symptom, portraying destruction of the nervous influence of the eye, and consequently great degree of injury to the brain. The breathing is stertorous. When the injury is very severe, hemiplegia is produced, and most frequently on the opposite side to that on which the injury has been received. These various symptoms may arise, either from the pressure of bone upon the brain, from extravasation of blood, effusion of serum, or from the formation of matter."

There are some points in this description to which we will take the liberty of alluding. Is Mr. Cooper certain that in simple concussion the pupils of the eyes have a natural appearance, and are under the influence of light? This does not accord with a succeeding sentiment—that the state of the pupil is an unsatisfactory diagnostic mark, both in concussion and compression. Neither does it accord with the observation of cases. We would say that in many instances, in which the circumstances rendered it probable that

* The works of Mr. Brodie on Diseases of the Joints, and on Injuries of the Brain, should be in the *memory* of every surgeon. Those who have complained that they are dull, have found that the study of nature is repulsive.

only "simple concussion" existed, the pupils were frequently dilated and insensible to the stimulus of light. We scarcely know what pure concussion is, for its symptoms mix so well and so often with those of slight compression and of injury to the texture of the brain, that it is difficult to determine where one ends and where the other begins. This consideration would be sufficient to make us pause in asserting that this or that condition of the pupil was essentially characteristic of concussion. When we turn to facts we find that in cases of what seems to be concussion, the state of the pupil is extremely various.

Mr. Cooper appears inclined to consider contraction of the pupils a very unfavourable symptom, and he states that it portrays "destruction of the nervous influence of the eye." That contracted pupil occurs in severe cases is indubitable, but we do not exactly see how it proves destruction of the nervous influence of the eye. Contraction of the iris does not imply paralysis of the organ so much as dilatation. When the belladonna is applied the pupil is dilated—so it is in amaurosis—so it often is in apoplexy, and in cases of compression where the retina seems totally insensible to light.

Mr. Cooper remarks that when the patient is recovering from concussion, the pulse will rise, when he is roused, from its natural number to a hundred and twenty. Of course this must be taken with reasonable exception—of course Mr. Cooper does not mean that this is absolutely, but only relatively true. Yet the student might be perplexed by the absolute assertion.

Mr. Cooper proceeds to mention that if compression is occasioned by the pressure of bone, the symptoms will come on immediately after the accident —but if from extravasation of blood or effusion of serum they are gradually established.

The latter observation is obviously imperfect. A patient receives a severe blow on the head. He is rendered senseless, continues so, has stertor, perhaps, and paralysis, and dies. There is found, on examination, effusion of blood on the surface, or at the basis of the brain. Here there has been no perceptible interval between the symptoms of concussion and compression; indeed it is most probable, that the blow which ruptured the vessel produced, at almost the same instant, both.

Mr. Cooper has omitted all mention of secondary hæmorrhage within the cranium, a circumstance of which the occurrence has been rendered certain by the observations of Mr. Brodie, and, we believe, of Dr. Macfarlane also.*

"Lastly,—when matter forms, days and even weeks may intervene, previous to the accession of the symptoms,—they are always preceded by a train of indications similar to the formation of matter in either parts of the body,—such as pains and rigors, after which, symptoms of compression occur, violent in proportion to the quickness and quantity of matter formed. Such symptoms lead to the necessity of surgical means for the removal of the matter. But a difficulty occurs to ascertain the precise point of the situation of the pus; puffiness of the scalp, easy separation of the pericranium, and the ashy color of the bone, form the marks by which the surgeon is authorised to use the trephine.

Too frequently, these symptoms come on insidiously, unattended with pain; but the surgeon should examine the scalp with care, when he will find the seat of injury still marked by a puffy state. Where the scalp has been wounded, the formation of matter may be more clearly pointed out. When this occurs, the edges of the wound, which were before healthy, will assume a glossy appearance, and the discharge becomes thin and ichorous."

Mr. Cooper has not noticed a fact of great importance, and not of extreme rarity. It is this. About the time when suppuration on or under the dura mater usually takes place, the symptoms that denote it may occur, and yet may be fallacious. Those symptoms are equally produced by suppuration

* See his volume of Clinical Reports.

within the cranium, and by the purulent deposites in the viscera, or in other portions of the body. If the surgeon is not aware of this circumstance, he may possibly be led to apply the trephine, when the mischief is seated remotely from the head. As an instance of the fact to which we have drawn attention, we may mention a case that occurred in St. George's Hospital. A man received some injury of the head, but we do not exactly recollect its nature. About ten days after the accident, he was attacked with rigors, succeeded by sweats. It was thought that there was suppuration within the cranium; but, no satisfactory evidence of its situation being present, the trephine was not applied. The patient sank. On inspection of the body, it was found that he had abscess of the liver.

"The inner table of the bones of the skull is sometimes fractured, while the external one remains entire: such an accident renders the diagnosis extremely difficult, because there are no external signs of the seat of the injury; or should there be any contusions of the exterior of the skull, still the fracture would probably be upon the opposite side, from what is termed a *contre coup*.

The effects of this accident would not come on until some time after the infliction of the injury, when effusion between the dura mater, and the inner table of the skull, would produce compression on the brain, and simultaneously a puffiness of the scalp externally, which would point out the seat of injury. In such a case, the dura mater is first separated, and the pericranium subsequently; the converse, however, more frequently happens, that the pericranium is first separated, and the dura mater subsequently; but, in either case, the train of symptoms which follow, are precisely the same."

We are not so sure as Mr. Cooper seems to be, that the fracture of the inner table would probably be on the opposite side to the stricken one. The well-attested instances of *contre-coup* are very rare—so much so, that it has been thought to occur only in those cases in which a blow upon the vertex occasions re-action on the basis, through the medium of the spinal column.

When Mr. Cooper states that the effects of this accident would not come on till some time after the infliction of the injury, we feel disposed to consider his language as loose—his description as deficient in particularity and exactness. We are tempted to inquire if Mr. Cooper alludes to depression as well as fracture of the inner table of the cranium. If not, we are inclined to doubt whether serous effusion on the dura mater must be looked on as a necessary consequence of mere fracture of that table. Whatever Mr. Cooper's meaning may be, we may probably lie open to the charge of misconceiving it. It certainly is not expressed with sufficient perspicuity.

"The treatment of both concussion and compression, are the same, so soon as reaction has taken place; which, however, is sometimes so slow in making its appearance, that it becomes necessary to employ stimuli, to restore the patient sufficiently, that he may be enabled to bear the means necessary to be employed. As soon as the pulse indicates the reaction, blood should be taken from either the jugular vein or the temporary artery, in such a quantity as may be considered expedient, regulated by the powers of the patient. A large dose of calomel, from eight to ten grains, should be immediately administered; which if the patient cannot swallow, should be passed into the fauces upon a piece of butter, which is a better vehicle than any other, as it melts from the heat of the mouth, and allows the calomel from its gravity to find its way to the fauces. The head should be shaved, and evaporating lotions applied, a sinapism should also be applied to the soles of the feet, and small doses of the sulphate of magnesia given every hour until the bowels are freely opened. Should the symptoms not be relieved by the application of cold, a blister should be applied to the scalp. If all these means fail, under what circumstances is the trephine to be applied?"

We cannot approve, without reserve, Mr. Cooper's therapeutical directions.

It is not a little strange, that he makes no mention of general bleeding, in cases of inflammation of the encephalon after injury, and omits all reference to the influence of mercury, given to the extent of affecting the system. Yet active and judicious surgeons will bear us out in our opinion, that these are the two *most* powerful remedies at our disposal. When reaction commences, the patient should be bled and actively purged with calomel and senna. If inflammatory symptoms continue, the bleeding should be repeated again and again, the quantity and the frequency being determined by the decision and the prudence of the surgeon. We have bled a patient to incipient syncope twice within an hour or two under these circumstances, and we saved him. After the bleeding has been carried so far as is consistent with propriety, blisters should be placed upon the scalp, and dressed with the mercurial ointment. At the same time, the patient should take calomel, in order to procure, without loss of time, its effect upon the system. We are supposing a severe case; but our readers may be assured that such a case will not be brought to a favourable issue by inefficient or by temporizing treatment.

"If attending these symptoms that I have described, there be a wound communicating with the bones of the cranium, accompanied with fracture and depression, or if there be fracture and depression, without a wound of the soft parts, or if there be puffiness of the scalp, either immediately after, or coming on, subsequently to the injury, then the surgeon is right in trephining; but, on the contrary, even if all these circumstances present themselves, but without the detailed symptoms, there is no evidence of the brain being injured, and therefore, I would recommend that the patient should be narrowly watched, and that the trephine should not be applied, until symptoms do point out the necessity."

It will be observed that Mr. Cooper differs from Sir Astley and from Mr. Brodie, in *not* recommending the employment of the trephine in cases of compound fracture of the cranium, attended with depression. We have not space for some interesting cases related by our author.

## IX. MEDICAL REFORM.

The following passage from a powerful article in the Times of March 20th, will shew how the prospective reform in medicine is regarded beyond the pale of the profession.

"Parliament, as the result of the important inquiry which is now in progress, must prescribe the course of medical studies, or provide boards of medical examinations, independent of partial claims of rival corporations, and destructive of their despotic monopolies. A high standard of qualification must be fixed, which shall be equally applicable to the three kingdoms, and a conformable degree or diploma obtained in one, must entitle the licentiate to practise in all. There need, then, be no distinction made in the course of prescribed studies between the education of men whose object is to practise any branch of the medical art. Being qualified for all branches, those who have made themselves more particularly masters of surgery will devote themselves to the surgical department of the profession, while those whose taste or superior knowledge of diseases leads them to prescribe for their patients without operating, will become physicians, and both, as at present is the case with the general practitioner, will be permitted to dispense their own medicines. The profession would thus have the same kind of practitioners and the same division of labour, as hitherto; but it would derive its rights from a different source,—its classification would be formed more according to the natural order of things;—the usurpation of what was formerly its lower branch over the higher would be destroyed,—and no distinction of country, college, or corporation, would interfere with the legitimate exercise of professional capacity."

Let this passage be compared with our own sentiments on several late occasions.

IV.

## MISCELLANIES.

### FOREIGN MEDICAL POLITICS.

THE following extracts from the report of a committee of the Academy of Medicine in Paris, upon a plan for the reorganization of medicine in France, will be read with great interest at the present period. They have been furnished us by Dr. Thomson, M.B. of St. John's College, Cambridge, now residing in Paris; and are also published in our contemporary, the London Medical and Surgical Journal—

"The question put by the government is thus expressed:—

'Can we, without inconvenience, renounce having two orders of medical men?'

To answer it deliberately, let us see first what existed formerly in France, compared with what exists in the present day, and contrasted with the medical institutions of neighbouring nations.

Preliminary studies, long and solid, a diploma, required in the Faculty of Letters, and recently even another diploma, required in the Faculty of Sciences; four years' inscriptions taken in a Faculty; five examinations, crowned by an inaugural thesis; expenses, which, for the University rights and the diploma, amount to 1,100 francs (about fifty pounds sterling). Such are the obligations that must actually be fulfilled by the Doctors in Medicine, or in Surgery.

Preliminary studies, none or insignificant, three years' study in a Faculty, or in a secondary school, which may be replaced by six years' presence in an hospital, or studies with a doctor; three examinations, most frequently illusory; an outlay amounting, for the University rights and the diploma, to 250, or at most 300 francs (about ten or twelve pounds sterling), there is what is required from the officiers de santé (a species of general practitioners).

To the first is reserved the right of practising to the fullest extent throughout the kingdom. The rights of the second have been in some respects limited, but the restrictions have been constantly illusory: the Doctors of Medicine recoiling before the anxiety and scandal of enforcing their rights by law-suits, and even the tribunals hesitating to apply the law in all its rigour."

"Let us now consider what takes place in neighbouring nations. In England the apothecaries have the right of practising and of prescribing the remedies they prepare; they, in truth, form a class of practitioners inferior to the physicians.

In Prussia, Germany, and Italy, the physicians and surgeons are admitted separately; but every where, as formerly with us, with the exception of some of the heads elevated to the first rank by their talent, the surgeons in general, and even some of the medical men, compose the inferior class, and serve most commonly as assistants and servitors to the others.

Thus, in this general review, we meet every where with two orders of practitioners. Must we conclude that such a state of things ought to be our guide, and that the past ought to form in this case a law for the future? Quite the contrary: since this past no longer corresponds to the irresistible wants of a new state of society; since, on all hands, there arises an unanimous outcry, it is too evident that we must seek in this organization itself, for the cause of this restlessness which torments us; and that the errors of the past ought to serve us as lessons. Called upon especially to correct the defects of the ancient legislation, the new legislation must, before every thing, prove its superiority to the other; it is only by deviating from the route hitherto followed, that we can act otherwise and better.

And first, this idea of creating by a law two orders of medical men, unequal in rights, in instruction, in capacities, is manifestly repugnant to reason and to justice. Humanity even is seriously injured by it. What! shall there be one part of the population to

whom shall be reserved all the resources of the art of healing, and another part abandoned, *à priori*, to the errors, the faults, the ignorance of a class of inferior practitioners? Such a distinction is not admissible in France,—it would be odious—it is absurd. In place of seeking to diminish intelligence by imposing on it an inferior level, we must try to elevate it more and more; the science must be accessible to all, but all must be obliged to cultivate equally the science. Our faculties, with the conditions they require from their pupils, with their immense means of instruction, with their numerous examinations, can scarcely ever arrive at producing medical men, not inferior to their mission. How could it be wished to entrust the health of citizens to officiers de santé, deprived at once of the preliminary knowledge indispensable to medicine, and of the means of study; and to hasten to receive them without giving them the time to study. If in all arts half knowledge is injurious, *à fortiori* in medicine, in which the least errors may become irreparable and endanger the life of citizens.

To create superiority by an article of law is absurd, and repugnant to the nature of things. The defenders of the institution of the officiers de santé say, that there is no need of such high medical qualifications for the country; let them rest assured mediocrity will never be wanting. It is a law of humanity which the legislator cannot remedy; but it is his duty to stipulate for society all the guarantees that are at once possible and necessary. All these guarantees are contained in the diploma of doctor, which doubtless cannot give to all an equal capacity, but which gives to all the same legal value; as the stamp to gold, as the effigy of the prince to the coin of the kingdom.

Such are the reasons in favour of the suppression of the officiers de santé. But objections against this measure have not been wanting; we must now appreciate their value. First, thay say to us, if you exact for a diploma of a medical man expenses so considerable, both of time and money, it will happen that many strong profound intellects will be forced from this career. Thence a double disadvantage, on the one hand, for individuals whose prospects will be lost; on the other, for the science, on which talents you reject might have impressed an increasing and glorious progress.

Further, these expenses, to which you will subject small fortunes, will necessarily induce the very natural desire of a proportionate remuneration; and as great towns only have the privilege of offering a brilliant prospect of ambition, this mass of doctors you are about to create, will crowd into the great towns, and leave the country places abandoned to quacks, who have not even intentions to allege in their favour, or else to sisters of charity, of whom the very praiseworthy zeal cannot disguise their ignorance and incapacity.

The objection reduces itself to this, that the too elevated prize of the doctorship will repel many men who might have been the glory of the science, and abandon country places to quacks.

The answer is easily given. And first, to arrive at a profession, promising at once ease, glory, and as much independence as is desirable from any other, without running risk to property or honour, assuring to all its members a good position in society, and, finally, an existence at least tolerable, is there really too great a sacrifice in four or five years of study, and eleven hundred francs of expense? At a period when a numerous youth encumbers every career, when fortunes, rendered equal by the division of lands, by giving to all fathers of families the power of making economies, have inspired the taste, are we justified in fearing that medicine will want aspirants, and that the so moderate exigencies of the law obstruct too closely its entrance? Where is the profession placed as high in the social scale, which has need of fewer aspirants? We find every where the time of probation, under different names, the supernumerary period, the clerkship, &c."

"We impose too great expenses! In truth this is laughable. But in the other professions, the outlays, the caution money, the purchases of practices of lawers, and of merchandize, are there not advances far more considerable? And then, moreover, it is easy still to reduce these expenses; multiply the places of instruction; let the

young people find nearer their families the instruction they are obliged to seek at such great distances.

For our part, what we alone wish, what is important to us, are guarantees; and on that account we call for more rigorous and more difficult examinations than at present exist, and do not fear, in proportion as the trials shall be more severe, that the candidates will be disgusted, and their number diminish; *the rigour of the examinations of the Polytechnic schools, by augmenting the consideration reflected upon the candidates admitted, has only increased the emulation and the number of aspirants.*

But, further, to remove such an objection, are our Faculties more deserted? Never was the influx so considerable. Will a complaint perchance be made of a want of medical men? With more justice is there too great number complained of. It is moreover said, that the rural parishes (*communes*) possess, generally, too little wealth, and instruction, and even distinction, to satisfy the intelligence and emulation of a doctor of medicine. What then! will it be said that the *officiers de santé* are less sensible than the doctors to all these advantages? The proof of the contrary is every day before our eyes; officiers de santé have quitted country places for towns; they practise in them on an equality with the doctors; they take great care to have themselves equally remunerated.

One of the wants of medicine in the present day is, beyond contradiction, a more equal distribution of medical men relative to the population, and, at the same time, with a more equal distribution of instruction among the profession. Medicine is not only an art, it is also an occupation, that should yield for each service rendered its reward. Doubtless it would be desirable to arrive at this end, to enrich the poor, and people the desert parts of the country; but if these ameliorations can only be effected after a long lapse of time, there are yet certain prudent measures which may, to a certain extent, supply their place. Thus the number of doctors will be on the increase in country places when they shall no longer fear being confounded with the *officiers de santé;* when each of them, penetrated with the dignity of his profession, shall no longer see arising near him an ignoble rivalry, and the science offered at a lower price. It must be confessed, indeed, that the great part of the *officiers de santé* not having for their guide the recollection of a good education, do not always follow, in their private conduct, the most honourable course; and as to their science, far from augmenting the little knowledge they may have acquired, the isolation in which they live makes them frequently forget it too speedily. Hence a justly founded repugnance on the part of the doctors to mingle with such men. Put an end to this cause of their absence, and be sure that the country places will not remain long without medical men."

It may be well worth while to compare and contrast these liberal sentiments with the tortuous, constrained, and absurdly multifarious system of medical polity, adopted in that model of free nations—Prussia!—a system, the *principle* of which is recommended for adoption in this country by our contemporary, the Medical Gazette. Let Englishmen read and judge.

"The Medical professsion in the Prussian states is divided into the following orders:—

1. *Graduate Practitioners of Medicine.*

This, the highest class, comprehends two subdivisions;—

1. Those who are graduates in surgery as well as in physic, and who thus unite in themselves whatever the medical art embraces in its entire extent. They are physicians and surgeons (*chirurgico medici, chirurgiatri*), or physicians and operators together. And in order to attain this rank, they are required,—

(*a.*) To have regularly taken their degrees as doctors of medicine and surgery. The term *regularly* here implies that the person shall have obtained the doctorate, after having in the first instance given proofs of a sufficient school education; then by going through a four years' curriculum in a University, commencing it with a *Tentamen philosophicum*, passing an examination before the faculty, and in conclusion,

defending publicly an inaugural dissertation composed in Latin by himself. Then he shall shew that he has gone through with success (*b.*) The required course of anatomy; (*c.*) Akiurgy, (mechanical or operative surgery); (*d.*) Clinical surgery; (*e.*) An examination on clinical medicine, conducted in the Latin language; and (*f.*) The oral final examination, that for the diploma; the extent of this trial takes in the whole range of the healing art.

Having complied with all these requisites, the candidate takes the oaths, and receives his diploma; and he thus becomes entitled to turn his acquirements to account, by exercising the medical art in all its branches. The minor surgery alone and minor offices, graduates of this high order, are obliged to relinquish for the benefit of the pure surgeons in those places where such are settled; those cases of course being excepted, where the occurrence of delay would be dangerous.

Whether the practitioner belonging to this class shall or shall not have the additional title of operator, depends chiefly on the result of his akiurgical and clinico-chirurgical examination.

2. Those who are graduate practitioners of medicine only (*medici.*) These are confined to the practice of inner medicine (*innere Heilkunde*); but they are by no means allowed upon this account to dispense with a knowledge of surgery; they are only not permitted to practise it, nor are they required to give proof of their practical ability in this respect.

To obtain the diploma of a practising physician of this class, the candidate must shew, (*a.*) That he has regularly graduated as a doctor of medicine; (*b.*) That he has gone through with success the anatomical course; (*c.*) The clinical surgery examination; however, with reference only to the pathological part of surgical diseases, omitting the operative detail; (*d.*) The clinical-medicine examination in Latin; and (*e.*) The oral concluding examination, in which the candidate shall be examined, among the rest, on the nature and treatment of surgical diseases.

The persons who belong to this order of the profession, comprehended under the two preceding subdivisions, besides the privileges already mentioned, are alone qualified for appointments as medical officers of state, from a chief medical privy councillor down to a physicus, provided they have previously given proof of the requisite knowledge in midwifery, have performed their medico-legal exercises with approbation, and have gone through the stated examination for the physicate. It is also only graduate practitioners of medicine who are eligible to the higher medical professorships; and in the military medical service, it is only those who belong to the first subdivision who may obtain the higher professional appointments, from staff-physician-general down to regimental physician.

II. *Surgeons of the First Class.*

These are medico-chirurgi, or iatro-chirurgi, who have not taken a degree. Individuals of this order must possess the requisite knowledge for treating inner as well as outer maladies, according to the precepts of the schools. They must, therefore, in order to be admitted to an examination, and to be qualified for their diploma, shew (*a.*) by gymnasial certificates, or a preliminary tentamen, that they possess the requisite general elementary knowledge, and at least so much Latin as to be able to translate the Pharmacopœia and some easy author, and to write a prescription correctly. Further (*b.*), they must shew either that they have gone through a regular three years' medico-chirurgical course, and have obtained the requisite practical ability from clinical instruction, or that they have attended the prescribed courses of lectures, and have for the same length of time, at least, acted as assistant-surgeon in a military or civil capacity. Then they must have gone through, with success, (*c.*) the anatomical course, (*d.*) akirurgy, (*e.*) clinical surgery, (*f.*) the medico-clinical examination in German, chiefly touching acute diseases, and of a purely practical tendency; and (*g.*) the oral final examination for the diploma, which shall be as well on medical as on surgical and pharmaceutical subjects.

Whether they shall obtain the additional title of operator, depends on

the issue of their examination in practical and clinical surgery. But the privilege of medical and surgical practice accruing to this class of surgeons, depends on the following external circumstances. It is only when they choose to settle in a place where there is not already a graduate practising physician, that they may practise medically; but the privilege continues with them, although a graduate may subsequently come to settle in the same locality. If, however, they wish to practise in large towns, or where there are already graduates residing, and there be no need of a medical assistant, they are then only allowed to treat surgical cases, and purely medical practice is forbidden them. An exception is made in favour of those surgeons of the first class who hold military or civil appointments—such as battalion physicians or district surgeons; to whom, in consideration of their not being at liberty, in the first instance to choose their own locality, it is conceded to practise medically as well as surgically, in all places wherever they may be, and as long as they are in the service of the state. For the rest, the surgeons of the first class are bound, in cases of consultation, to pay due respect to the opinions and suggestions of the graduate doctors.

Surgeons of this class being appointed chiefly with reference to their practical utility, with a view to the supplying, by their means, the country folk and inhabitants of small towns with proper medical assistance, are alone held eligible to appointments as district surgeons, when they shall have previously obtained a midwifery license, and passed successfully the medico-legal examination;—as also they may be promoted to the office of surgical assessors in the medical colleges, to district pauper surgeoncies, to be assistant physicians and surgeons in hospitals, and, in the military service, battalion, garrison, and government staff surgeons.

An objection has been made to the introduction of this class of the profession (which has, in point of fact, proved itself to be the most truly useful, perhaps, of all,) that, 1, there is thus provided for the people in the country a less competent class of medical practitioners than for those in town; 2, that when these surgeons are held competent for internal practice, it is unfair to refuse them the liberty of practising medically in large towns; and, 3, that the well-earned privileges of the graduate doctors are prejudiced and injured. All this, however, is founded in mistake. The surgeons of the first class, though only allowed the title of surgeons, are just as competent for universal practice as the graduate doctors. It is not the proof of their acquirements adapting them for universal practice that is remitted to them, but that learned education requisite for the cultivation of science: besides, the examination required of both is exactly the same. It is not to be denied that a man may be a very useful and most successful practising physician, without having any pretensions, at the same time, to a learned education, or being competent to promote medical science. On the other hand our most learned physicians, the heroes of science, are often not the best practitioners: one may thus be both a learned and a practising physician, but also either separately. So far, then, as mere ability for inner practice is concerned, there would be no reasonable ground for refusing to surgeons of the first class the right of treating medically the dwellers in large towns—a right which is enjoyed by surgeons of the same class when in official situations.

But the object was to provide the country folk and inhabitants of small towns, who were so frequently destitute of genuine medical assistance, with a better instructed and more variously accomplished class of practitioners than they had under the old system; and for great towns, where professional labour can be liberally remunerated, to secure the required supply of authorized assisting-surgeons, and thus again to put a stop to the bunglings of the mere barbers. For this reason, it was necessary to lay down certain restrictions for surgeons of the first class, with regard to their practising medically; such as that they were to be recognized as medical practitioners only when there was a lack of that class—because they would otherwise (like the

licentiates, their predecessors) take good care not to settle in the country, where they would have less profitable and far more arduous duties imposed upon them than in town.

The objection, then, that it is unjust to forbid this class of medical practice in large towns, at once disappears. It is only to the surgeon of the first class who is in the service of the state, that this privilege can be permitted; because, otherwise, such an individual suffering a greater loss by the prohibition of the privilege of inner practice than the gain that accrues from his very parsimonious pay, would gladly remain unattached to the service, and the state would soon find itself constrained to fill up its appointments with an inferiorly qualified class of surgeons; and that, too, in the large towns themselves. And, in reality, the country, as well as the military service, requires a class of professional men specially qualified for the duties. The graduate doctor, if he be not at the same time a surgeon, can be as little serviceable in military service as in the country, and in general, cannot get a livelihood in the latter without some official appointment at his back. Neither his taste for intellectual society, nor his endeavour to keep pace with the advancement of science, nor the pretensions which he can reasonably make to a better way of living can here find their contentment. By the multiplying of graduate doctors, the towns would be overstocked with them, whilst the country would remain unprovided with the requisite medical aid; as the experience of various inland parts can testify. Now this defect could only be remedied by the introduction of a suitable class of practitioners, who, by reason of an inferior scientific education, a less expensive mode of attaining their professional standing, and by reason also of the lower condition of life from which, for the most part, they are sprung, have thus fewer demands and less pretensions to affect a station and rank in society. For the rest, it remains undeniable, in spite of the many objections urged to the contrary, that the country physician, like the military physician of lower rank, requires no such great extent of scientific attainments for the sort of inner medicine which falls to his share; not so extensive, at least, as the practitioner in town. The whole host of chronic and acute disorders which are introduced by a sedentary life—by the refinements of cookery—by the ever-varying fashions in dress—and by the luxurious habits in towns—are only of rare occurrence in the army, as well as in the country. A more uniform way of life, similarity of occupation, and in part an equality of age, give room for a more uniform appearance in the complaints, and preclude those endless complications which are owing to the influences just alluded to. And in addition to this, the physician in a great city must have acquired, besides his professional knowledge and experience, an abundance of general knowledge and maxims of life, if he wishes to move in the higher circles of society, and to inspire confidence in his skill. All which are no ways essential for the country practitioner.

In fine, as to the objection that by introduction of surgeons of the first class, the well-earned rights of the graduates are prejudiced, the repetition of what has been said must be a sufficient reply—that this is the case in a much less degree than it formerly was, when ungraduated physicians (the licentiates) were permitted to practise; for they possessed, in every respect the same rights and privileges as the graduates did. Moreover, the interests of the profession were much less to be considered in the arrangement than those of the sick, who wanted medical aid and had none. Yet with all this, the doctors, so far from having actually lost by the introduction of surgeons of the first class, have in reality gained by it; for there has resulted from that step a more uniform distribution of medical practitioners, and a limit has been set to their superabundant influx in large towns. By the simultaneously introduced difficulty of accomplishing the University course—by the perfecting and extending of the higher medical curriculum itself—and by the severity of the subsequent examinations for attaining the doctorate—the number of graduates has been very much diminished. Each person who, at present,

can only reach the rank of surgeon of the first class, could, on the old system, have graduated, as competent for inner practice; or he went through the examination for the licentiateship, and then took his degree into the bargain, without, after all, possessing more acquaintance with the science of his profession than does the present surgeon of the first class. Only the name and the privilege have been altered, not the thing itself. Thus, by the introduction of surgeons of the first class in the Prussian States, there has not been one more practising physician added than there would have been without this class; and only the number of *unlearned* doctors has diminished in proportion as there has been a vent opened for them among the first class surgeons.

III. *Surgeons of the Second Class.*

The candidate who wishes to obtain a diploma as surgeon of the second class, must shew either that he went through the education and apprenticeship prescribed by the medical edict of 1725, or that he had been a military assistant-surgeon at least for three years, or that he had obtained the knowledge and expertness requisite for a surgeon of the lower rank, by the regular attendance of public places of instruction. In the latter respect the candidate must prove that he has gone through with success a complete (three years) curriculum in a native medico-chirurgical establishment (School of Surgery). Yet will certificates of other lectures, attended even in foreign establishments, be admitted as valid, among which, however, those on bandages and the use of instruments, on fractures, and luxations, on operations, and surgical clinic, cannot be dispensed with; and together with which it must be also made to appear, that the candidate attended the said clinic not merely as a hearer, but as a practical assistant;—that he performed dissections, and took part in the practice of operations on the dead body, and on models (*Phantome*). With these testimonials, the candidate will be admitted by the Medical College of his province to an examination, which is to be completed in four terms."*

* Medical Gazette, No. 323.

From such a farrago of divisions and subdivisions in British medicine, "good God *deliver* us!"—or rather *defend* us! The artificial distinctions in this country are surely minute enough, and the education sufficiently diversified—but when English sense submits to such German trammels, there will be a censor to the press—and a police officer in every lecture-room to prevent a liberal expression being pointed or spoken.

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## MEDICAL STATISTICS AND REFORM.

The leading article of the Medical Gazette, No. 325, gives a comparison of medical statistics in London, Paris, and Berlin, which strikingly exemplifies and supports the doctrine which we have long preached—viz. the propriety of raising the scale of general medical education, so that all, or nearly all, should possess medical or surgical degrees. The article in our contemporary is, indeed, the most reasonable and liberal that we have lately perused in that Journal, and, though he still has a fling at those who would "level upwards," the whole tenour of the facts and observations adduced by him, goes to sanction the mode of levelling which we have advocated.

In London, then, with a population of a million and a half, we have 225 graduate physicians and 1525 surgeons and general practitioners—total, 1750—or one medical practitioner to 857 of the population.

In Paris, the population is 935,108, and that capital supports 925 graduate physicians, 36 doctors of surgery, and 12 officiers de santé—total, 1084, or one to 862.

In Berlin, the population is only 240,086, while the physicians are 228, surgeons, 74—total, 302, or one to 825.

Now it will not be said that the doctorate is more easy of access, or the medical education inferior, in France than in Great Britain—and yet almost the whole medical corps of Paris have degrees in medicine or surgery! This holds out encouragement at home, that a law to compel all to have degrees would be very unlikely to produce a dearth of medical practitioners. We verily believe that such a law would very little diminish the number of practitioners (since all now in existence would be exempt from its influence) while it would certainly raise the elementary knowledge of the aspirants far above its present level, and thus call forth a race of more "learned Thebans," if not better practitioners, than those now occupying the field.

We do not quite agree with our contem-

porary, that the cause of this great inequality of ranks, in the three capitals, depends on "undue difficulties, in the present state of things, in the way of British practitioners attaining the first class of their profession." Quite the contrary. We think it is owing to undue facilities given to those who are the "physicians general" of the community. How few will graduate at Edinburgh to starve in London, restricted to the exercise of a single branch of their profession, while they can graduate in Bridge Street, and flourish as general practitioners? Raise the medical education to a par (letting talent, industry, and science go as high above the level as they please), and all will then start in the race on an equal footing, while ability will be just as sure of rising then as now.

We have been taunted by our contemporary with the attempt at "levelling upwards." We plead guilty. We hope he will be equally candid, and acknowledge that his recommendation to give greater *facilities* to the *doctorate*, in this country, is a mode of "levelling downwards." It is for the profession to decide which is the better plan.

Our contemporary dwells much on the injurious effects of equallizing the education of medical practitioners, because such equality would destroy all differences in rank and title, and, what is worse, take away all stimulus to rising *by degrees* in professional honours. As the objection is repeatedly urged, we must again and again recur to the answer. Does the equality of education, of rank and title, in any one class of the profession, diminish the stimulus to rise above the common level of that class? Are any two of the fellows, licentiates, surgeons, or general practitioners precisely on a par, in real rank or distinction? We believe not. In the same street, we shall see two FELLOWS—one estimated by the public and the profession as a LION, the other as an ASS, yet the education and rank of both are the same; two licentiates in the same neighbourhood—one sought after by patients from morning till night, the other seeking after patients—often without being able to catch them—yet the education and rank of both are identical. In the same locality we shall see two general practitioners—one driving furiously in his carriage from square to square—from nobleman to nobleman, the other eking out a wretched revenue by selling matches, cold cream, and Morrison's pills! Yet the education and rank of both are the same. In close proxity to each other, we shall see two pure surgeons, one of whom will be entrusted with operations on royalty itself—while the other would not be trusted with the carving of a goose—yet the rank and education of both are the same! We see, then, that equality of education and of nominal rank has no power—no tendency to level real rank and distinction, with the advantages accruing thence. Let us see whether the present grades of rank afford a stimulus to rise from one grade to another? What would the general practitioner gain by quitting his rank, and becoming a licentiate? In nine cases out of ten, he would gain—*the loss of his practice!* Hence, no one ever attempts to climb such a giddy height—unless he has previously realized an independence, and only longs for the otium cum dignitate—with a new plate over his door.

What does the licentiate gain by admission to the fellowship? Not increase of real rank, reputation, or wealth, the grand objects of pursuit in this world—but, on the contrary, he often gains the disrespect, if not the contempt, of the class which he deserts and of that which he joins! In our humble opinion, the present ascending and descending series of ranks and titles, in a profession, the *exercise* of which is the same throughout, rather checks than augments the stimulus to real distinction. Institute imaginary or artificial honours as substitutes for real ones, and mischief is the result. Does real rank or distinction appertain to the diploma with which we start in the exercise of our profession, or to the honours which we afterwards acquire—and the additions which we make to the science which we profess? Yet the present distinctions and titles of the different grades have no necessary connexion with, or dependence on, the greatest talent or the most profound learning. A general practitioner may be a Hippocrates in the knowledge of diseases, and a Haller in medical science and literature; yet will he never be raised by the licentiates into their third heaven—nor by the FELLOWS into their paradise! We beg pardon—a solitary exception occurred in our own time. An apothecary became a licentiate—lived a long life as a licentiate—but *died* a fellow!!

But, as our aristocratic brethren have such an insatiable thirst for grades of rank, and for distinctions of title, in our indivisible art and mystery, we should be inclined to concede these external decorations to them, as we give toys and rattles to spoiled children. All we would ask in return would be this—that the *medical* education of the *plebeian* practitioner should be raised to the present level of the *patrician*—which, we humbly conceive, is not a Utopian project, seeing what is done in other countries—and

this granted, we would willingly confer on the patrician orders of our noble profession, the most magnificent titles and distinctions that were ever engendered in oriental imaginations. Thus, the graduates of Oxford and Cambridge might be entitled the stars of the firmament, or the children of the SUN—while those of London, Edinburgh, Dublin, or Paris, might take the humbler appellations of nephews of the moon, or *satellites* of the earth, being strictly enjoined to revolve at respectful distances from the superior bodies. The pure surgeons might claim the designations of thunderbolts of heaven, scythes of time, or scissors of fate, according to their rank in the noble art of vivisection. These titles and distinctions, we submit, would be a fair equivalent for permission to drink at the same fountains of knowledge with themselves, and slake our thirsts *ad libitum*.

But in a country like this, where there is such a love of title, and such a horror of equality, *even in medical science*, we candidly confess that our expectations of thorough reform are very limited. We should certainly have no fear of any bad consequences arising from a perfect equality of education and title throughout the whole profession, knowing, as we do, that individual talent and industry would always keep up the greatest extent of real distinction in our ranks, were all artificial designations of superiority and inferiority abolished. But, as a great proportion—perhaps a majority, of our brethren will not subscribe to this system of "levelling upwards," we must accept such a system as our legislators shall think fit to give us.

Meanwhile we would venture to throw out a brief sketch of the modifications that we think might be engrafted on the present divisions or classes of the profession.

*First*, we would suggest that no one should enter on the career of his medical studies before the age of eighteen, when, if designated for general practice, he should undergo an examination in classical and general knowledge prior to his apprenticeship. This apprenticeship we would limit to two years—especially in the country, where lectures could not be attended. At the age of twenty, his general medical studies should commence, and be pursued through three academic years in any recognized school within the limits of Great Britain, allowing one or two years of that time, if desired, to be spent in any proper foreign school. At the age of 23, a public examination in medicine, surgery, midwifery, pharmacy, &c. should be passed before a faculty or board, composed of physicians and surgeons. This rigid tentamen over, he should have a diploma or degree, conferred on him, with the designation of "ORDINARY PHYSICIAN," entitling him to practice any or all branches of the profession *ubique terrarum*, or at least throughout the British dominions.

*Secondly*, those who aimed at a higher grade, and who wished to earn it by a more extended and expensive education, general and medical, might be indulged—and possibly without disadvantage. Such aspirant should not be allowed to enter on the professional curriculum till the age of 20, at which period he should undergo a strict examination in Greek, Latin, mathematics, and general knowledge. His medical curriculum should embrace six, or at the least five, years of clinical and preceptorial studies, two of which might be allowed to foreign schools. His examination should be the strictest of all, and in public, after which he might go out either in physic or surgery, as he pleased—and have a degree, conferring on him the title of "GRADUATE PHYSICIAN" in the one case, or "DOCTOR in SURGERY" in the other—or, if both, "DOCTOR in MEDICINE and SURGERY."

Thus there would still be two, if not three designations; but the education of all would experience a very considerable approach to amalgamation. The "ORDINARY PHYSICIAN should always have the option of passing into the class of PHYSICIAN EXTRAORDINARY, or GRADUATE, by addition of study, or rather by undergoing the examination imposed on the latter originally.

As men may work with their own tools, so the ordinary physician might be permitted to furnish his own medicines to his own patients, but not to sell them, and not to charge for them as a whole, but as a part of the remuneration for skill and attendance. This will be the most difficult point to settle, whether by the legislature or the individual practitioner. We are as firmly convinced as ever, that the general practitioner, or, as we propose to designate him in a new order of things, the PHYSICIAN in ORDINARY, will never attain the height of respectability and of satisfaction in his avocations, till he can charge *entirely* for his skill, without having any thing to do with the actual dispensing of medicine. But, as opinion runs contrary to this, especially in the country, let opinion have its way. A day will come, we apprehend, when the practice of physic and surgery will be entirely independent of the practice of pharmacy. Till then, some improvement may, perhaps, be made on the present plan. Suppose the legislature were to enable the

general practitioner to charge from 3*s.* 6*d.* to 5*s.* for his daily attendance, or, where daily attendance is not necessary, for his separate visits—with a margin of 1*s.* 6*d.* to 2*s.* 6*d.* for medicines furnished, according to the nature of the case;—we think that such a scale of remuneration would be infinitely preferable to the present one, where the whole expense of a sickness comes in at the end of the year, in the form of a bill of parcels, throwing the medical skill and attendance entirely out of sight, and merging all in the gross, and often nauseous, *materiel* which the patient has swallowed during his confinement!! Is it possible that any liberal mind—that any man who has an idea above that of a tallow-chandler, or who wishes to see every gradation of medical society elevated in general estimation, can sanction or advocate such a system as that now in general use? For our own parts we care not whom it may offend (for we can have no *personal* interest in the case) but we shall not cease to urge our brethren and the legislature to a revision and reformation of this crying evil. We do not speak from *theory* on this subject, but from ample experience and observation; and we hope to see the day yet when our recommendations shall come into operation. We may mention, en passant, the plan which we have mentioned above has been acted on successfully by several practitioners within the circle of our own acquaintance—and that the plan of prescribing *exclusively*, without furnishing any medicines, has also been adopted with complete success, by more than one or two general practitioners in the immediate vicinity of London. We apprehend that what can be done in a few instances, may be done in a multitude of cases. It requires, however, a simultaneous movement in the ranks.

*Thirdly.* An important question remains to be decided by the "collective wisdom." What is to become of our corporate bodies—the College of Physicians, the College of Surgeons, and the Worshipful College of Apothecaries? In metaphysics we admire the Pythagorean doctrine of transmigration, rather than that of annihilation; and in physic, we would follow something of the same doctrine. We would amalgamate the Colleges of Physicians and Surgeons, their disciples being all in the practice of one and the same art and science—and we would confine the Worshipful Company of Apothecaries to the "*statu quo*"—to the counter—to the art and mystery of pounding and compounding DRUGS, instead of pounding and compounding DOCTORS. We can see no reason why the two Colleges should not be incorporated into ONE FACULTY, furnishing a Court of Examiners for all candidates, and constituting the ruling body of the profession.

If the two divisions, to which we have alluded, should be adopted, we would concede to the GRADUATE Doctors of Physic and Surgery, the election of two-thirds of the ruling body from their own class, and one third from the ordinary physicians. This plan would give a preponderance to the higher grade, while it held out encouragement to the lower to rise—and at all events, gave them a voice in the medical council.

As all medical practitioners must necessarily belong to this FACULTY, so, a moderate fee from each would bring in a princely revenue to this same Faculty, while the honour of forming a component part of the cabinet, or ruling body, would prove a most powerful stimulus to industry and study.

The amalgamation of the Colleges in Edinburgh and Dublin would follow of course: these would constitute parts of the same faculty, and be obliged to enforce the same curricula of education, &c. as the parent faculty in the metropolis.

With the Universities, whether English, Irish, or Scotch, there need be no interference. Those who go to Oxford or Cambridge for Greek, Latin, mathematics, and aristocratic connexions (for physic is out of the question in those seminaries) should still be allowed to reap all the advantages which universities furnish, and the degrees conferred there should be attached to their other honours—but they ought to have no exclusive privileges over their brethren. The knowledge acquired on the banks of the Thames, between Battersea and Blackfriars, is just as good, (if to the same amount) as that which is acquired on the banks of the same river, when a lazy streamlet running through Oxfordshire.

Some of our contemporaries object to this "levelling upwards" in the medical profession, on the plea that the poor in particular, and even the inhabitants of country villages in general would be left without medical assistance, since no one who incurred the expenses of an education such as we propose, would settle in villages, hamlets, or sequestered rural situations. We have no right to doubt the sincerity of these reasoners, or that they are actuated by any other motives than those of philantrophy towards society at large, and humanity towards the indigent and afflicted. But we have a right to question the legitimacy of their arguments and

deductions. On this, their *point d'appui* of objection to "levelling upwards," we meet them without the least apprehension, or rather with the fullest confidence. As the experiment has not yet been tried in this country, we can only argue by analogy—or by what has been done in other countries. We need only refer to the statements made in our contemporary, to shew that in Paris, nine-tenths of the medical practitioners are physicians, with a curriculum more extended than that of physicians in this country. Where then is the impracticability of raising the standard of medical education at home, when we see it done so easily abroad? Have Englishmen less means, or less capacity for knowledge than Frenchmen? But let us draw the analogy closer to our own doors. Our contemporary is too pious to agree that the cure of our immortal souls is of less consequence than that of our perishable bodies. Yet our bishops and our legislators have not feared that the spiritual concerns of our villages and hamlets would be sacrificed by making a *University education* a preparatory step to clerical duties. We would ask whether the most retired country church ever stands empty for want of a curate on 70 or 100 pounds a year, although that curate is obliged to produce proofs of a university education? In fact, we are perfectly confident, that if every member of the medical profession were compelled to graduate at Oxford or Cambridge, previous to practice, such is the redundancy of population, and the difficulty of finding employments for the youth of this country, there would not be a village in England without a doctor. It is very probable, indeed, that there would be fewer medical practitioners than at present. There might be only ONE in a village, instead of half a dozen—but that one would be more respectable, and he would not be obliged to descend to low and disreputable means of supplanting his rivals, and pulling the bread out of their mouths to keep himself and family from starving.

We firmly believe that, if the education and title of the present GENERAL PRACTITIONER were raised to that of the physician—if quacks were put down—and chemists restrained to their shops—the whole profession would assume a more respectable character—the public health would be better preserved—and the indigent classes more generously relieved than at present.

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## NORTHERN PROVINCIAL MEETING OF MEDICAL PRACTITIONERS IN IRELAND.

The province of Ulster, the most intelligent and intellectual province of Ireland, has set a striking example to their brethren on both sides of the Irish Channel, by a general meeting of influential practitioners in Belfast, where a string of resolutions were passed, and several eloquent speeches made on the subject of Medical Reform. The corporate bodies came in for their share of castigation. We regret that we cannot afford space for more than one or two out of eleven resolutions passed at one of the largest meetings that perhaps took place on the subject of medical reform, beyond the precincts of the metropolis.

*Resolved* 1*st.* That many of the laws which now govern the Medical Profession, in these kingdoms, are unjust, partial, inefficient, and not adapted to the present condition of society, or to the advanced state of Medical Science; and several of the Medical Corporations, which have had legal powers entrusted to them, have hitherto used these as instruments of oppression and self-aggrandisement, to the great injury of the Profession, and in opposition to the public good.

*Resolved 4th.* That the wants of society in later years, have created a demand for, and require, the *General* Medical Practitioner, who necessarily officiates in every department of the healing art—as Physician, Surgeon, and Apothecary; and therefore that all distinctions of grade or name are antiquated, unnecessary, injurious to the profession, by introducing invidious grounds of fancied superiority among its members; and by varying the course of education, are detrimental to the well-being of the community at large.

*Resolved 5th.* That, as it appears, from several sections of the proposed "New Act" of the "Dublin Apothecaries' Company," which are evidently intended to operate retrospectively, they would oppress and impose fines on the General Practitioners, now in business, for pursuing that part of their profes-

sion called *Pharmacy*, by a galling system of espionage and gross injustice, demonstrating that their own pecuniary interests, and not the good of the medical profession, or of the public, are now, as they always have been, their sole end and aim—we will oppose their intentions by every legal means in our power.

We may take this opportunity of entreating our provincial brethren not to desert their post, or forsake the good cause of reform, because a parliamentary enquiry is instituted. The recommendations of the committee, whatever they may be, are only preliminary, and the plan of reform must undergo a fiery ordeal in both Houses of Parliament. If, therefore, the general sense of the medical community be not expressed universally, through the medium of petitions from the country, we stand a chance of being ultimately defeated in the practical stages of the question. Our country cousins should recollect, that we of the metropolis are not omnipotent, and that our exertions should be aided by their voice and support. They will have great reason to regret their supineness, if they leave us in the lurch on this occasion.

SAT VERBUM SAPIENTIBUS!

## OBITUARY.

It escaped us to notice the death of the late Sir William Franklin, of the Army Medical Board, on the 27th of October last. We regret this the less, as we understand that his son-in-law, the Rev. Mr. Bennett, is drawing up a short biographical notice of this amiable, learned, and accomplished medical officer. Of this biography we shall take due notice; and, in the mean time, have to state that his friends have entered into a subscription to erect a monument to his memory. Never was memorial of merit more justly due, or more richly deserved than on this occasion.

## BIBLIOGRAPHICAL RECORD;

FROM

*The 1st October, 1833, to 1st April, 1834.*

1. A Compendium of Osteology; being a Systematic Treatise on the Bones of the Human Body; designed for the Use of Students. To which is subjoined an improved Method of preparing Bones for Osteological purposes. By GEO. WITT, M.D. Physician to the General Infirmary, Bedford. Quarto, pp. 72. Longman and Co. October, 1833. Price 7s. 6d.

☞ *See Periscope.*

2. Five Minutes' Advice on the Care of the Teeth. Twelfth Edition. Duodecimo, pp. 40. Renshaw and Rush, Oct. 1833.

☞ *The immense sale of this little brochure shews that it has been appreciated by the general reader, for whom it is designed.*

3. Traité de la Vaccine, et des Eruptions Varioleuses ou Varioliformes. Ouvrage rédigé sur la Demande du Gouvernement, precédé d'un Rapport de l'Academie Royale de Médécine. Par M. S. B. BOUSQUET, M.D. Octavo, pp. 367. Paris, 1833. Baillière, London.

4. A Dictionary of Practical Medicine, &c. By JAMES COPLAND, M.D. Part the Second. Climacteric Decay to Dropsy. October, 1833.

☞ *We understand that upwards of four thousand copies of the first part have been sold! Need we say more?*

5. An Inquiry into the Disease called Cholera Morbus, shewing its Nature, and suggesting the Means of Cure. Octavo, sewed, pp. 56. Gardiner, Princes-street. October, 1833.

6. Observations on Obstetric Auscultation, with an analysis of the Evidences of Pregnancy, and an Inquiry into the Proofs of the Life and Death of the fœtus in Utero. By EVORY KENNEDY, M.D. Lecturer on Midwifery, &c. Richmond Hospital, Dublin. With an Appendix, containing Legal Notes. By JOHN SMITH, Esq. Barrister at Law. Octavo, pp. 288. Dublin and London, Oct. 1833.

7. Illustrations of the Effects of Poisons. By GEO. LEITH ROUPELL, M.D.

The Plates from original Drawings by AND. MELVILLE M'WHINNIE, M.R.C.S. Part I. Royal 4to, pp. 12. Four coloured Plates, price 16s. September, 1833.

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8. An Account of the Proceedings of the first Anniversary Meeting of the Provincial Medical and Surgical Association, held at the Bristol Infirmary, July 19, 1833, containing the Address delivered on that Occasion by ED. BARLOW, M.D. Physician to the Bath United Hospital, &c. Octavo, pp. 71. 1833.

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9. CYCLOPÆDIA OF PRACTICAL MEDICINE, Part XVIII. Pregnancy to Roseola. Oct. 1833.

☞ *In this Part, there are some very clever articles by* Dr. TODD, Dr. CUMIN, Dr. HALL, Dr. TWEEDIE, Dr. THOMSON, Dr. BARLOW, *and* Dr. BEATTY.

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10. Syllabus of a Course of Lectures on the Principles and Practice of Surgery. By FRED. TYRRELL, Surgeon to St. Thomas's Hospital. Octavo, pp. 116. 1833.

☞ *If the* bodies *of these Lectures be proportionate to the* heads, *we venture to say they will be very valuable to the student.*

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11. Mental Culture; or the Means of developing the Human Mind. By J. L. LEVISON, 8vo, pp. 300. London, 1833.

☞ *This little Work contains an immense fund of important information on the subject of cultivating the mind, by improving the various faculties. It is based on phrenology, and the matter is too elementary to be susceptible of analysis in a medical Journal.*

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12. A new Method of making Anatomical Preparations; particularly those relating to the Nervous System. By JOSEPH SWAN. Third Edition, considerably enlarged, pp. 111. Longman, and Co. 1833.

☞ *This Edition should be in the hands of all those who are in the habit of making anatomical preparations.*

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13. The principles and Practice of Obstetric Medicine, &c. By DAVID D. DAVIS, M.D. Professor of Midwifery, &c. Parts XXIV. XXV. and XXVI. with Plates. October, November, and December, 1833.

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14. The Register and Library of Medical and Chirurgical Science—a Medical Newspaper, edited by GRANVILLE SHARPE PATTISON, M.D. Professor of Anatomy in Jefferson College, Philadelphia. No. I. pp. 64. Washington, 1833.

☞ *This is a bold as well as novel attempt of our talented countryman. In one single sheet, which folds as a newspaper, are contained 64 pages of small type—mostly in double columns. Dr. Pattison proposes to re-publish all the best medical works in this cheap form, besides the varieties of a medical journal. Mr. Bell on the Nerves is re-printed in the first Number. It is to come out weekly. This is a Herculean task; but we think it will succeed, and form a kind of epoch in periodical literature. We need hardly say, that we wish Dr. Pattison even more success than he himself anticipates.*

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15. A Memoir on the Advantages and Practicability of Dividing the Stricture in Strangulated Hernia on the Outside of the Sac, with Cases and Drawings. By C. ASTON KEY, Senior Surgeon to Guy's Hospital, &c. Octavo, pp. 161. London, 1833.

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16. Surgical Observations on the Restoration of the Nose, and on the Removal of Polypi and other Tumours from the Nostrils:—from the German of Dr. Diffenbach, of Berlin; with the History and Physiology of Rhinoplastic Operations, Notes and additional Cases. By JOHN STEVENSON BUSHNAN, M.R.C.S. &c. Surgeon to the Dumfries Public Dispensary. Octavo, pp. 160, and 26 Plates, price 12s. Highley, Oct. 1833.

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17. Thoughts on Medical Reform. By a Retired Practitioner. Octavo, pp. 33, sewed. Oct. 1833.

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18. Fasciculi 1, 2, 3, 4, price Two Shillings each. A Series of Anatomical Plates, in Lithography, with References and Physiological Comments, illustrating the Structure of the different Parts of the Human Body. Edited by JONES QUAIN, M.D. Professor of Anatomy in the University of London. Division I., the Muscles. Folio. Taylor, Oct. 1833.

☞ *This is one of the cheapest systems of anatomical plates that we have seen. Dr. Quain's name is a sufficient guarantee for the correct execution of the Work.*

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19. Chemical Diagrams, accompanied with a concise Description of each Decomposition. The vegetable alkalies, the Urine and Urinary Calculi, &c. intended to facilitate the Progress of the Medical Student.

By ALEX. LEE, Surg. Editor and Translator of Celsus. Small 8vo, pp. 182. Cox, Borough, 1833, price 7s.

☞ *This is a very useful little volume for ready reference.*

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20. Surgical Essays, the Result of Clinical Observations made at Guy's Hospital. By BRANSBY COOPER, Esq. F.R.S. &c. Large 8vo, pp. 281. London, 1833.

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21. First Annual Report of the Sussex and Brighton Infirmary for Diseases of the Eye, established August, 1832.

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22. A Practical Treatise on Diseases of the Joints. By W. J. WICKHAM, Surgeon to the County Hospital, Winchester. Octavo, pp. 177, two plates. Highley, 1833.

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23. Clinical Observations on the Constitutional Origin of the various Forms of Porrigo, &c. with Directions for the more Scientific and Successful Management of this obstinate Class of Diseases, &c. By GEO. MACILWAIN, Surgeon to the Finsbury Dispensary, &c. Octavo, pp. 83. Longman and Co. 1833.

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24. Relacao Historica, Statistica e Medica da Cholera Morbus em Paris, precedada da Topographia desta Capital. Por FRANCISCO D'ASSIS SOAZA VAZ, Doutor em Medicina, &c. Octavo, pp. 372. Paris, 1833.

☞ *Dr. V. appears to have carefully observed the epidemic in Paris; and, as the disease is now scourging his own country (Portugal), his Work will prove exceedingly useful there. In this country, cholera has, for the present, ceased to excite either interest or apprehension.*

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25 The History of a Case, in which Animals were found in Blood drawn from the Veins of a Boy, with Remarks. By J. STEVENSON BUSHNAN, F.L.S. Surgeon to the Dumfries Dispensary, &c. Octavo, pp. 74, with a coloured Plate. Highley, price 3s. 6d.

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26. Obstetric Tables, comprising coloured Delineations on a peculiar Plan, intended to illustrate elementary and other Works on the Practice of Midwifery, elucidating particularly the Application of the Forceps and other important Practical Points in Obstetric Science. By G. SPRATT, Surgeon-Accoucheur, Editor of the Flora Medica, &c. Quarto, with Twelve Plates, coloured.

☞ *This Work is very ingeniously contrived, and will be found of the greatest advantage to the student of midwifery.*

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27. Introduction to the Study and Practice of Midwifery, and the Diseases of Women and Children. By WM. CAMPBELL, M.D. late Surg. R.N. Lecturer on Pathology and Practice of Medicine, Midwifery, &c. Octavo, pp. 714. Edinb. 1833.

☞ *This appears to be a very laborious and careful compilation, imbued with a more than ordinary proportion of original observation. It is well calculated as a class book for Students in midwifery—especially those who are attending the author's lectures.*

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28. A rational Exposition of the Physical Signs of the Diseases of the Lungs and Pleura, illustrating their Pathology and facilitating their Diagnosis. By CH. J. B. WILLIAMS, M.D. Second Edition. Churchill, Dec. 1833.

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29. On the Efficacy of the Secale Cornutum in Hæmorrhage and Leucorrhœa, and on its Effects in Gonorrhœa. By E. NEGRI, M.D. Read before the Medical Society of London, 25th Nov. 1833.

☞ *See Periscope.*

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30. A Literal Interlinear Translation of the First and Third Books of Celsus; with Ordo, and the Text of Targa. By CHARLES GERARD. Revised and amended, with an Introduction, &c. by ROBERT VENABLES, A.M. M.B. Octavo, pp. 250. Ed. Portwine, Dec. 1833.

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31. The Nature and Treatment of the Epidemic Cholera; with Instructions for the Suppression and Prevention of the Disease. By ROBERT VENABLES, A.M. &c. Octavo, pp. 52. Second Edition. Ed. Portwine, Dec. 1833.

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32. A Treatise on the Diseases of Females. By WILLIAM DEWEES, M.D. of Philadelphia. One vol. 8vo. pp. 591, 4th edit. greatly improved. 1833.

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33. On the Penetration of Gases. By J. K. MITCHELL, M.D. Professor of Chemistry, &c. From the American Journal of Medical Science.

34. Beobachtungen Urspruenglicher und Gaenzlichen Mangles der augen Bei Menschen und Thieren, Von D. BURKHARD WILHELM SEILLER. Mit Einer Rupfer— und einer Steindruckt a fel. Quarto. Dresden. 1833.

35. A Series of Anatomical Plates, &c. By JONES QUAIN, M.D. Fasciculus V. The Muscles continued.

☞ *These plates keep up their character.*

36. A Demonstration of the Nerves of the Human Body; consisting of Four Parts. 1. The Cervicle and Thoracic Portions of the Sympathetic, and the Nerves of the Thoracic Viscera. II. The Lumbar and Sacral portions of the Sympathetic and the Nerves of the abdominal Viscera. III. The Cerebral Nerves. IV. The Spinal Nerves. Part IV. Price Four Guineas. Longman and Co. 1834.

☞ *This work is beyond all praise.*

37. The Dispensatory of the United States of America. By GEO. B. WOOD, M.D. and FRANKLIN BACHE, M.D. 8vo. pp. 1073. Philadelphia, 1833.

☞ *This appears to be a highly valuable compilation, embracing much that is new in this country.*

38. An Essay on the Physiology of the Iris; with a different View of its Relations and Sympathies from the one usually received; and attempt to establish a new Theory of the Action of Light, &c. By JOHN WALKER, Assistant Surgeon to the Manchester Eye Institution, &c. Octavo, pp. 16, 1833.

39. An Examination into the Causes of the declining Reputation of the Medical Faculty of the University of Edingburgh, and the Origin of another Class of Medical Professors, commonly called "Private Lecturers," &c. 8vo. pp. 58, Edinburgh, 1834.

☞ *This is of local interest, and shews no extended views of medical education. On the contrary, the Pamphleteer thinks that too many classes are included in the Edinburgh curriculum, and too much study enjoined!!*

40. Illustrations of all the most celebrated Medical and Surgical Works, comprising a complete System of Morbid and Descriptive Anatomy, wherein is combined with variety in each number, methodical arrangement of the whole. Nos. 1 and 2. Six plates weekly, price Threepence each. Dulau and Co. Soho Square. 1834.

☞ *Of all the cheap works which we have yet seen, this is the cheapest. We think it is hardly possible that such plates and letter-press, at three pence per plate, can be continued, without ruin to the publishers. It is a most extraordinary publication!!*

41. Elements of Materia Medica and Therapeutics; including the recent Discoveries and Analyses of Medicines. By A. T. THOMSON, M.D.F.L.S. &c. Vol. II. pp. 694. 1834. Longman and Co.

42. The Monthly Journal of Medico-Chirurgical Knowledge. Published by H. Gouraud, A. Trousseau, J. Lebrudy. Translated by HENRY BELFIELD LEFEVRE. 1st Fasciculus, Oct. 1. 1833. Price 1s.

☞ *We wish this attempt of our continental brethren every success. But we have some fears for the result*

43. I. Statement of the New Regulations published by the University of St. Andrew's.

II. Protest of the Examinators to the University of St. Andrew's, against the Petition of the Royal College of Surgeons of Edingburgh, &c.

☞ *At the time when the subject of general reform in the medical profession is agitated, we cannot enter into the quarrels of particular universities or colleges.*

44. A Treatise on Diseases and Injuries of the Nerves. By JOSEPH SWAN, a new edition, very considerably enlarged. Octavo, pp. 356. Ten Plates. Price 14s. boards. Longman and Co. 1834.

☞ *To be reviewed.*

45. Thoughts on Materialism and on Religious Festivals and Sabbaths. By HENRY BRADSHAW FEARON. 8vo, pp. 214. Longman and Co. 1834.

46. An Investigation into the remarkable Medicinal Effects resulting from the external Application of Veratria. By ALEX. TURNBULL, M.D. Octavo, pp. 96. Longman and Co. 1834.

47. Principles and Practice of Obstetric Medicine, &c. By D. D. DAVIS, M. D. Parts XXVII. and XXVIII.

48. A Series of Anatomical Plates in Lithography, with References and Physiological Comments, &c. Edited by JONES QUAIN, M.D. Division 1, Muscles. Fasciculi VII. and VIII. January and February, 1834.

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49. A treatise on the Circulation of the Blood, in two Parts. Part 1, containing an Explication of the Anomalies, res inepta, &c. of the present Doctrine. Part II. an Attempt to explain how the Circulation is accomplished by motive powers different to those which are supposed to effect that Operation. By J. F. HANDLEY. Octavo, pp. 33. 1834.

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50. The Anatomy and Surgery of Inguinal and Femoral Hernia. Illustrated by Plates coloured from Nature, and interspersed with Surgical Remarks. By E. W. TUSON, F.L.S. Assistant Surgeon to the Middlesex Hospital, Lecturer on Anatomy, &c. Folio, Churchill, 1834.

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51. The Principles of Diagnosis. Vol. I. Second Edition. By MARSHALL HALL, M.D. F.R.S L. & E. Octavo, pp. 426. January 1834.

☞ *This Edition appears to be much improved, and, as the author remarks, "that the matter of the second volume is of much more practical interest than that of the present one," we shall look with anxiety for its appearance, and we will not fail to give an early account of it in this Journal.*

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52. On the Influence of minute Doses of Mercury, combined with the appropriate Treatment of Various Diseases, in restoring the Functions of Health, and the Principles on which it depends. By A. P. W. PHILIP, M.D. F.R.S. &c. Duodecimo, pp. 112. London, Renshaw, 1834.

☞ *The substance of this little volume was published in the Medical Gazette, some years ago. The pathological portions are much enlarged in this compendious re-publication.*

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53. Lectures on the Morbid Anatomy, Nature, and Treatment of Acute and Chronic Diseases; delivered in the Theatre of Anatomy, Webb Street. By the late JOHN ARMSTRONG, M.D. Edited by JOSEPH RIX, Member of the Royal College of Surgeons. Octavo, pp. 851 Price 16s. London, Baldwin and Co. 1834.

☞ *This, from the testimony of Dr. A. himself, is the most correct edition of his valuable lectures that has ever appeared.*

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54. The second Fasiculus of Anatomical Drawings, selected from the Collection of Morbid Anatomy in the Army Medical Museum at Chatham. Folio, nine plates, with descriptive Letter-press. 1834.—*To be noticed in our next.*

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55. The Anatomy and Physiology of the Liver. By FRANCIS KIERNAN, Esq. Member of the R.C.S. late Teacher of Anatomy. (From the Philosophical Transactions.)

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56. On the Reflex Function of the Medulla Oblongata and Med. Spinalis. By MARSHALL HALL, M.D. (From the Philosophical Transactions.) *Under Review.*

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57. Of Monopolies in Learning; with Remarks on the present State of Medical Education, and on the Constitution of the Scotch Universities. By ANDREW BUCHANAN, Graduate and Regent of the Faculty of Medicine in the University of Glasgow. 8vo. pp. 24. Glasgow, 1834.

☞ *This pamphlet is deserving of perusal at the present moment.*

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58. Observations on the Ulcerative Process and its Treatment, particularly when affecting the Leg. By WILLIAM ECCLES, Surgeon. 8vo. pp. 66. Highley, 1834.

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59. A Treatise on Lesser Surgery; or the minor Surgical Operations. By M. BOURGERY, M.D. &c. Translated from the French, (with Notes and an Appendix.) By W. C. ROBERTS and JAMES B. KISSAM. New York, 1834. pp. 376, an Appendix, pp. 36.

☞ *We do not believe that there is a volume of the same size in the English, or in any other language, which contains such a magazine of truly useful, because practical information, as that which Messrs. Roberts and Kissam have translated, and enriched by notes and appendix. It will prove a treasure to the student and young practitioner, while it will serve as a most valuable reference even to the more experienced surgeon.*

## EXTRA-LIMITES.

### *Dr. Wise's Reply to Mr. Arnott.*

TO THE EDITOR OF THE MEDICO-CHIRURGICAL REVIEW.

SIR,

I trust you will be good enough to allow the following statement to appear in an early Number of your valuable Journal, having reference to a Letter addressed by Mr. Arnott to Dr. Johnson, and published in your October Number for 1832.

Mr. Arnott's anger appears to have been particularly directed against Dr. Johnson, for having permitted certain remarks, authenticated by the name of a gentleman in India, to appear in the Medico-Chirurgical Review, animadverting on the character of a surgeon to a London Hospital, without their having been first submitted to that individual for perusal, with a view, I conclude, of his adding or erasing such parts as might suit his peculiar purpose. The satisfactory and triumphant manner in which you have, in the October Number, vindicated the line of conduct pursued on this occasion must, I think, have carried conviction to the heart of every unprejudiced man, and proved that you were perfectly justified in publishing the communication in question.

Mr. Arnott very complacently states, that the period which had elapsed between the publication of his Essay and the appearance of my Statement, ought to have prevented your inserting the latter document; or, in other words, that the distance at which an individual resides, or his opportunities of seeing new publications, should be the test which ought to guide the Editor of a journal in rejecting or inserting communications. Had you adopted this rule for your guide, I should never have been able to expose Mr. Arnott's proceedings.

His Essay I have not yet seen; and the first intimation I received of his publication was from your review, and that many months after it had reached this country, as medical works, I assure you, are not very easily procurable in the interior of Bengal. I then learned, for the first time, that Mr. Arnott had, a very few months after I left England, presented an Essay to the Medico-Chirurgical Society on the subject of Phlebitis. That could not have been written without a long and patient examination of various medical works, and must have been in hand at the very time when I was candidly communicating to him my opinions on the nature of this disease, which Mr. Arnott well knew I was making my particular study, and on which he confidentially further knew it was my intention to publish, had I not been obliged to delay the undertaking, in consequence of my immediate departure for India.

Annoyed as I very naturally was on discovering this want of candour on the part of Mr. Arnott, it was not until the year 1831, that I had fully ascertained the extent to which he had appropriated to himself the information communicated by me on this subject—at a time, too, when he had led me to suppose that he was engaged in very different pursuits. In that year I had occasion to look over my papers, with a view to publish the two Essays that I forwarded to you; and, in so doing, became convinced of the necessity of pointing out the cause of the striking resemblance between Mr. Arnott's remarks and my own, and deemed it essential to my own character to send you, with the Essays, the memorandum or note pointing out the extraordinary conduct of Mr. Arnott. I now trust that I shall be able to prove, to the satisfaction of every one who has taken an interest in this question, that my former statement contained nothing but what is borne out by undeniable facts. Passing over the publication of the very *same three cases*, which of course, with Mr. Lawrence's permission, Mr. Arnott had an equal right to with myself, I solicit your attention for a few moments, while I compare Mr. Arnott's results, as given in your Review, with the few observations which I added to these very *same* three cases which were printed by me in 1827, and of which I beg to enclose a printed copy for your own inspection, and that of any gentleman who may take an interest in this discussion.

Mr. Arnott commences his paper as follows:—"A degree of doubt seems still to

prevail as to the cause of the alarming constitutional affection frequently attendant on inflammation of the veins, and much obscurity unquestionably exists, with regard to the origin of those abscesses, and inflammation in distant parts which sometimes occurs after injuries. An attempt to remove the one, and to dispel a portion of the other, may not therefore be considered as altogether unworthy of notice." This is the categorical intention of Mr. Arnott's Essay; and it bears a peculiar and certainly curious resemblance to the following few remarks added to the cases printed by me. Other consequences of phlebitis less prominent were not stated, although detailed at length in my two Essays. "As the symptoms of internal inflammation advanced, these in the vein proceeded more slowly.* * * These constitutional symptoms were severe inflammatory fever, and inflammation of a serous membrane, which is illustrated by the above cases, and by a considerable number of other fatal cases of the disease which I have witnessed, and is still further supported by experiments which I made upon animals. * * * As the disease proceeded, pus was discharged from the wound in the vein, or from abscesses in the cellular tissue. The inflammatory fever was followed by symptoms of depression which generally resembled very much those of the epidemic (typhus) fever of this country. * * * The examination after death proved, that by the local effects of the bleeding or other exciting causes, an inflammation of the vein and surrounding cellular substance occurred, in consequence of which either from the structure or function of the part inflamed, inflammation of other and distant parts followed, attended with much danger to life. Such effects may be compared to fever, accompanied with inflammation of the mucous membrane of the intestines, or syphilis, with the affection of the throat, &c.

The local disease was thus stated as not being progressive with the constitutional effects, which are, fever taking on the typhoid form, and inflammation of the cellular, serous, and synovial membrane, at a distance from the primary local disease, with distant purulent deposits.—(*See Essays.*)

The reviewer of Mr. Arnott's Essay (p. 36) says, that throughout the Essay, and in the latter part of it especially, he (Mr. Arnott) evinces remarkable talent for what is termed "framing" a theory. We admire the ingenuity, but deplore the instability of the workmanship. Mr. Arnott laboured under disadvantages in explaining his ideas; he wished to give information, as far as he could do so without compromising himself —this is seen in his explanation of the termination of inflammation in the veins which he says "has *escaped* the *notice* of those who have *previously treated* of inflammation of veins." His explanation accords with what I have stated in my Essays, (p. 77, et seq.); but, he was obliged to leave out the peculiar changes in the blood, which is so remarkable a consequence, from being aware I had published a note in the Medical and Physical Journal for the year 1827, (a copy of which I have added to the communication, (No. 2.) This note was published at the *suggestion of Mr. Arnott.* A knowledge of the facts therein stated, explaining the facility with which he happily imagined the last paragraph of his Essay, which he delivers with all the circumstances of an oracle-finis que coronat opus.—"As the object of these remarks was to point out the relation between the primary and secondary affections in phlebitis, and to establish the introduction of pus or other inflammatory secretion from the surface of the vein into the circulation as the cause of the latter, I do not regard the matter so deposited to be actually that which has been brought into the circulation from the inflamed vein or veins, (although no reason is given why the pus in the vein should not enter the circulation.) The disease of the eye in which pus is not deposited, and the affection of the joints, exclusive of other considerations, clearly prove that the question is no longer one of a translation of matter merely, but one which involves the difficult subject of the pathology of the blood, especially *the share* which *diseased changes in this fluid* have in the production of those phenomena which we are in the habit of comprehending under the term of inflammation."—(P. 123.)

After perusing the above, what are we to think of Mr. Arnott's declaration, (Med. Chir. Rev. October, 1832, p. 504,) "that he has not derived any cases, materials, facts, or opinions, from Dr. Wise."! What are we to think of his statement that he never saw a dissection or drawing (*See* Essays), or knows what Dr. Wise's opinions may be on the subject of phlebitis. Several gentlemen could testify, that in pointing out to Mr. Arnott the cases of erysipelas then in St. Bartholomew's Hospital, when going my rounds as House-Surgeon, accompanied almost daily by my *friend* Mr. Arnott, I confided to him what I had formerly witnessed of the course and consequences of phlebitis, explained what I considered the course of the constitutional effects of the disease as they

were developed in the *very three cases*—and I believe the *only original cases* published in Mr. Arnott's Essay, which occurred at that time in St. Bartholomew's Hospital—and to which I particularly directed his attention, as being extremely interesting in themselves, and as affording proofs of the justice of the conclusions at which I had previously arrived. Hence is explained Mr. Arnott's acknowledgment (p. 2.) that his attention was more particularly *called* to the subject by *some circumstances* which marked the course and terminationof the '*same*' fatal three cases of the inflammation of the veins after venesection, which I (Mr. Arnott) had an *opportunity* of *observing*." Lastly, what are we to think of Mr. Arnott's conduct, when I state that he saw my remarks on those three cases, which were drawn out at his suggestion, and printed for the London Medical and Physical Journal,* and Mr. Arnott himself corrected one if not two of the proof-sheets!!!

The above facts will readily explain why Mr. Arnott, instead of answering my assertions found it easier to attack Dr. Johnson, for giving insertion to my communication. I only trust that I have been as successful in vindicating myself as he was in repelling the insinuation of improper motives; and if I have not been so fortunate, I hope the candid reader will attribute it to a desire to condense my proofs, and entreat him, if at all interested in the subject, to pause in drawing an unfavourable conclusion as to my motives for appearing before the public, until he has read and compared my Essays (imperfect as I am aware they are) with the communication of Mr. Arnott to the Medico-Chirurgical Society.

I have many apologies to offer, Mr. Editor, for having written at such length; which I trust will be attributed to the natural desire of explaining my motives, for having addressed you before in vindication of my rights, and now in reply to the aspersions of Mr. Arnott. I am, Sir,

Your most obedient Servant,

*Hooghly, Bengal, 29th April*, 1833. THOS. S. WISE, M.D.

P.S. I must add that Dr. Johnson is only known to me by his high and well merited reputation; nor am I aware that I am personally known to any individual writer in the Medico-Chirurgical Review.

*** The cases alluded to, printed in 1827, by G. Black, Bartholomew Close, have been transmitted to the Editor, and are in his possession.

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* I dare say the then learned Editor, Doctor M'Leod may recollect the circumstance, from his having been inconvenienced by their being withdrawn; which, however, he politely permitted for reasons which it is unnecessary now to mention.

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## LITERARY NOTICE.

*Preparing for the Press.*—The entire Works of JOHN HUNTER, F.R.S. with Notes by J. F. PALMER, Senior Surgeon to the St. George's and St. James's Dispensary; assisted by G. G. BABINGTON, Surgeon to the St. George's Hospital, Lecturer on Surgery at St. George's Hospital, formerly Surgeon to the Lock Hospital; THOMAS BELL, F.R.S. F.L.S. Lecturer on the Teeth, and Lecturer on Comparative Anatomy at St. George's Hospital; ROBERT LEE, M.D. F.R.S. Physician to the British Lying-in-Hospital, Physician to the St. Marylebone Infirmary, and Lecturer on Midwifery; and RICHARD OWEN, M.R.C.S. F.Z.S. Assistant Conservator of the Hunterian Museum.

We can scarcely doubt but this announcement of a complete, and at the same time, cheap edition of Mr. Hunter's invaluable writings, will be regarded with general satisfaction by the whole profession. The names of the Editors, and the appropriation of the several parts of the work, are, in our opinion, most judicious, and warrant a full expectation, that the notes will be ably executed, and those additions made which the progress of science has rendered necessary. We understand that the Royal Society have, with great liberality, granted the use of the whole of their copper-plate engravings connected with Mr. Hunter's papers in the Philosophical Transactions, for the purpose of enabling the Editor to complete the series of plates designated for the illustration of this edition. We are informed that the Editor has made great exertions to collect the most authentic materials for a new Life of the Author, and that it is his intention to publish a collated copy of his MS. Surgical Lectures.

## ERRATA.

In Doctor Paine's paper, page 435—3d line from the top in the first column, for *weight* read *bulk*. *This error was in the English copy, and being one which a printer could not detect, was not discovered until after it was reprinted, when it was pointed out by Dr. P. himself.*

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Medico-Chirurgical Review (American reprint)
N.S.vol.20(Oct.1,1833-Mar.31,1834)

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